MIRAGE WORLD By CHESTER S. GEIER

SEE BACK COVER

AMAZING STORIES

DECEMBER 25¢
IN CANADA 30¢

A Tale Of The Long Forgotten Past

QUEST OF BRAIL

By RICHARD S. SHAVER

ANCIENT PROPHECY COMES TRUE

THERE HAVE BEEN A LOT OF PEOPLE WHO CLAIMED TO HAVE BUILT THE GREAT PYRAMID, BUT HISTORY PROVES NONE OF THEM. HOWEVER, THE PYRAMID OF GIZEH, PYRAMIDOLOGISTS SAY, WAS BUILT FOR PROPHECY

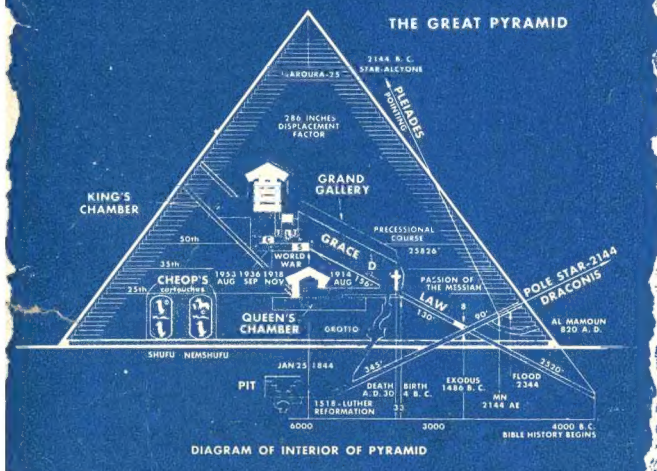


DIAGRAM OF INTERIOR OF PYRAMID

THERE IS A GREAT CHAMBER AND TUNNEL, MEASURED OFF IN INCHES, A DAY FOR EACH INCH, WHICH TELLS OF IMPORTANT EVENTS IN HISTORY MANY OF THEM HAVE COME TRUE, THE LAST BEING SEPTEMBER 1936

CURRENTLY, THE PROPHECY OF A GREAT EVENT ON MARCH 3-4 OF THIS YEAR HAS COME TRUE. ON THAT DAY AMERICANS BROKE GERMAN LINES WEST OF THE RHINE, WHICH, REMAGEN NOTWITHSTANDING, WON THE WAR

The OBSERVATORY

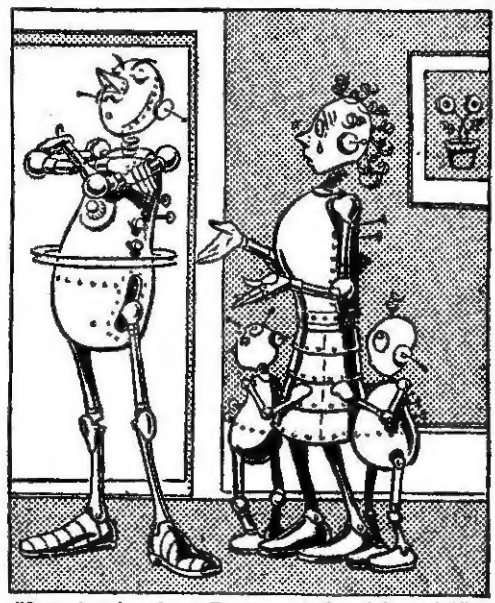
by the Editor

ALL through the world today a clarion call is being sounded—a weird, mysterious call "to arms" as it were. A call of warning; a call to duty; a call to great men and small; a call of subtle meaning—heard at every turn by those who have EARS THAT HEAR. And now, your editor is himself sounding the call, but in a way and with a vehemence that has never before been peculiar to it. Up to now we have called it "The Shaver Mystery." Today it is no longer a mystery; but an open book. The secret message contained in Mr. Shaver's first three manuscripts published in *Amazing Stories* in March, June and September has been understood by many more than we dreamed possible. Did YOU understand it?

WE URGE every one of you who is certain that war is a great and preventable evil, who admits that human beings do not fight because they want to, who realizes there is more to life than just what we can see on the surface, to read and THINK ABOUT Mr. Shaver's story in this issue; Mr. Moore's article on Telepathy's Radio; Mr. Gaddis' article on Giants On The Earth; the new and tremendously popular and significant department "Report From The Forgotten Past"; and lastly, *Discussions* with its intensely interesting letters from you, the readers! To many of you, the meaning will be perfectly clear, and will clarify in your mind many of the mysterious things that have been disturbing you. To others, it will present a challenge—a challenge to your mind and to your knowledge that will lead you to leap to your feet in defense of that knowledge. To these last, we can say that you will be acting rightly; because no matter what has been said up to now WE DO NOT SAY THAT SCIENCE IS WRONG ABOUT ANYTHING! We DO say that science does not KNOW everything, and that some of the things they do know, today, they will THEMSELVES deny or modify in the day to come.

WE WANT especially to call attention to the fact that quoting an authority is not a final settlement; and does not constitute an "argument" that is conclusive. As an illustrative point, assume that a "scientist" visited a plant making one-inch pipe in one-foot lengths. He would go through the whole plant, making observations of the product. Then he might visit ten other such plants. Now, assuming that there are no other plants, and that pipe is made only in this form, he can sit down and write a book about pipe, and his conclusions would be that "Pipe is one inch in diameter, and one foot long. It is never found in any other form. Hundreds of actual observations in eleven different plants prove this. Pipe, however, can be joined together in multiples to make "pipe" in any desired length, depending only on a place to put it." Now, along comes the editor of *Amazing Stories*, who flatly says there are pieces of pipe two inches in diameter and ten feet long. Also, he says he believes in the existence of such pipe, and his author's use of it in a story is credible. Up jumps a reader and says "You cad! Pipe comes only in one-inch by one-foot size—and I present MY AUTHORITY in positive proof. My dear Editor, have a care how you bandy FACTS about!"

(Continued on page 6)



"But what has Lana Turner got that I haven't?"

REG. U. S. PAT. OFF.

All STORIES Complete

QUEST OF BRAIL
(Novelet—35,000) ..... By Richard S. Shaver..... 8
Illustrated by Julian S. Krupa
Brail was faced with a terrible decision—he had to lose a war to evil ones or enslave his people.

PLANET OF THE DUPLICATES
(Short—5,600) ..... By William Lawrence Hamling 62
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Murder out in space, on a far planet, can be a perfect crime—unless your victim duplicates himself!

MIRAGE WORLD
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Radar waves just don't reflect from a mirage—so there must be something here the eye cannot see . . .

THE MIRACLE OF BULLDOZER MIKE
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Bulldozer Mike wasn't religious, but he did have a steadfast faith in . . . well, call it a miracle.

ME AND MY SHADOW
(Novelet—10,500) ..... By Berkeley Livingston..... 106
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If you find yourself locked in a vault in a bank, why just remember your shadow—and walk out!

LET FREEDOM RING!
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Today the atomic bomb makes a frightening possibility out of this story of America in the future!

GALLERY OF GLACIAL DOOM
(Short—5,000) ..... By Frances M. Deegan..... 146
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"Put 'em on ice!" is a very fine way to "salt away" guys like Hitler (is he dead?) and a few others.

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Front cover painting by Robert Gibson Jones, illustrating a scene from "Quest of Brail"
Back cover painting by James B. Settles, depicting the "Jet Propelled Mono Train"

AMAZING STORIES ★ DECEMBER 1945

Published quarterly by ZIFF-DAVIS PUBLISHING COMPANY at 185 North Wabash Avenue, Chicago, 1, Ill. New York Office, Empire State Building, New York, 3, N. Y. Washington Office, International Building, 1319 F. Street, N.W. Entered as second class matter June 21, 1944, at the Post Office, Chicago, Illinois, under the act of March 3rd, 1879. Subscription $2.50 for 12 issues; Canada $3.00; Foreign $3.50. Subscribers should allow at least two weeks for change of address. All communications about subscriptions should be addressed to the Director of Circulation, Ziff-Davis Publishing Company, 185 North Wabash Ave., Chicago, 1, Ill.

Volume 19 Number 4

The OBSERVATORY by the Editor

(Continued from page 3)

YOUR editor humbly, yet steadfastly, insists that the "authority" has the right only to say that he has examined pipe and found that the pipe he has examined is one inch in diameter and one foot long. HE HAS NO RIGHT TO DRAW ANY CONCLUSIONS from his observations—because he is only human, and prone to err. He COULD be wrong in his conclusions. And he is LOGICALLY wrong in supposing that only that exists which he has SEEN and MEASURED and PROVED by EXPERIENCE. Any conclusions drawn should be labeled such, and cannot be quoted as either fact or authority. And this goes for your editor and for Mr. Shaver, and for everyone else concerned. And now, let the "argument" proceed!

WE ARE trying to prove or to DISPROVE Mr. Shaver's stories—but we cannot refute them by saying that geology disproves them because science knows coal, for instance, is millions of years old. No one can say that coal is that old. We can only say that radium deposits in coal beds (judged from the famous "radium-clock" method), show the *radium* to be that old. We CAN'T say that the radium and coal were put there simultaneously!

THERE were several last-minute changes in the make-up of this issue, in order to allow the immediate publication of a story that seemed to your editor to be quite timely and to have a special significance which might well tie up with the Shaver stories. For instance, we had to drop (with a great deal of regret) the story by Henry Hasse and Ray Bradbury entitled "Final Victim." This one was a victim, all right, but not final, take it from us. You'll get it in the next issue. Then, there is the possibility, even as we write this, that Frances M. Deegan's "Gallery Of Glacial Doom" will have to be dropped out also. So, if it isn't on the contents page, that's what happened to it. It, also, will appear not later than the next issue.

NOW for the story that occasioned these changes —"Let Freedom Ring" by Rog Phillips. Strangely enough, for the last few months, we have been getting a great deal of "prophecy" thrown at us, a lot of it re-hash of ancient and not-so-ancient stuff which has or has not come true. But a great deal of it is new stuff, sent in by various people who have no connection with each other. The strange factor is the weird similarity of these predictions. A great many predict some startling upheaval in the next few years, and for some reason 1947 is picked on all over the place! This is no exception in the yarn we are presenting by Phillips. It opens with the full-scale invasion of Japan (we write this on August 2, 1945) which (fictionally, we hope) turns into a rather drastic defeat for us, in that 2,500,000 of our troops are burned to death in that old Hitler bugaboo when he was reputed to have tried to invade Britain or at least staged a mock invasion for his own edification which only succeeded in "frying" 5,000 of his own men. In short, Japan, using large submerged tanks and tanker subs, used all the gas they are not using today to resist us in the air to loose upon the invasion fleet and burn it up.

IN retaliation, we bomb Japan's volcanoes, and —but read it for yourself! This is only the opening of the story. What follows is what is most amazing of all, and we were tempted to run the story under the title "Let Freedom Sting." Just what is freedom anyway? Could such a thing happen in these United States as is pictured in this fantasy of future science?

YOUR editors do not know if it is possible to burn out an invading army as this story pictures it, but we do hope that our army planners have the full story of that mysterious 1940 report of a fiery death to some of Hitler's troops, and know just what can and what cannot be done along these lines. That big "all-out" smash at Japan mustn't be a flop, or you and your editor will be eating hay for years!

ROBERT MOORE WILLIAMS, soldier, writes a soldier story in his "The Miracle of Bulldozer Mike" and he writes the kind of a story we accept as a matter of course from this author. It is one of those fine things that make him remembered by all. We can recommend this one without any reservations.

BERKELEY LIVINGSTON appears again with "Me And My Shadow" which takes an old theme and does it up in grand style with a brand new dress. You'll be surprised at what happens in this one by a lad who has proved what he can do with the ordinary to make it extraordinary.

WILLIAM LAWRENCE HAMLING has one about a planet where it doesn't pay to imbibe too much. It's bad enough to see double, but when you begin to see in multiples of a hundred or so, it's time to lay off the seltzer water and stick to straight Scotch. (Footnote—Scotch, a drink known in the days of ancient Lemuria, but long since forgotten by the descendents of that cold-cocked continent.—Ed.) Anyway, this one has a double-vision ending that will have you seeing yourself without a mirror!

CHESTER S. GEIER (not to be outdone) goes about seeing things too in his "Mirage World."

It's a fooler, boys, so don't pass it up because you think you've seen worlds with mirages on them before in science fiction!

WHICH just about completes our review of the stories in this issue. However, a word or two about some of the articles. There's been so much talk about giants because of Shaver's stories of the Titans that Vincent Gaddis (who makes a practice of digging up strange facts about this old earth of ours) did an article which goes to prove that Shaver is right. Read this one and bear in mind this ISN'T fiction, but scientifically accumulated fact, and then decide whether or not the Bible is right in saying "In those days there were giants in the earth."

ANOTHER article is by John McCabe Moore, who is a more interesting fellow than we dare to tell you right now, which deals with the pineal gland which is responsible for that phenomenon we know of as telepathy. What about that gland? Is it an atrophied gland of the past, or an eventual goal of evolution for the future? We didn't have five senses when we began life in the sea, that's a cinch, and since we got the ones we have by slow stages, who's to say we're through getting them? we've even heard of the seventh and eighth, and about fifteen more. Well, what about it? Your editor is inclined to be logical and believe that what's happened before will happen again. (Some sort of sixth sense assures us that it will!)

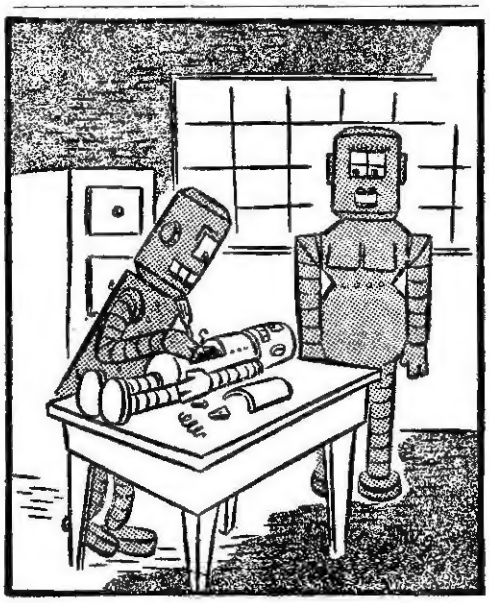
SEEMS we made a mistake in saying we had reviewed all the stories in this issue—we haven't done more than mention Richard S. Shaver's fourth great story from those mysterious thought records of his! "Quest Of Brail" does not properly fit into the series insofar as our own Earth is concerned, since it seems to be a story of a world that may have been old before the Earth was even a flaming mass of gas. No matter about that, because even Mr. Shaver can't tell us where the story takes place, and whether the "thought record" from which he got it is just fiction or not. Maybe it's a fiction story written by some master writer of ancient Lemuria—or maybe it's a more modern creation of one of the "tero" who isn't such a bad hand with a typewriter—pardon—a thought record! All we do know is that here is a story that just won't take a back seat to any writings we've ever read.

ONCE again, to those who saw so much in the first stories, we want to point out that there is much to learn in this story through application of that mysterious knowledge and mysterious ability many of you readers have demonstrated to your editor as *actual* knowledge and ability. We ask that anything you find in this story that will add any vital clue to the final truth we are seeking be transmitted to your editor personally.

NOW we want to go into the thousands of letters received from readers. We are answering them all, but very slowly. So if you have written one or many letters, and have received no answer, please bear with your editor. Eventually we will answer, and, we hope, be able to help you to a more complete picture of the mystery that bothers many of you. We want to repeat—all you readers who hear voices, write and tell what the voices say. We have conclusively established that there are voices, and we are prepared to prove it to anybody who wants to find out without presuming to ask us to do all the doing while he sits on his fat and drools "put up or shut up." We don't propose to put up to anybody with that sort of attitude, because we aren't interested in satisfying curiosity seekers and those mentally blind ones who never thought an actual thought of their own in their whole lives, but who can spout other people's thoughts all over the place and claim that that is knowledge. True knowledge is knowing, not *believing*. Further, we want all those who think they have a mission here on Earth to write and tell us what it's all about. Here's one place you'll get listened to without being marked for the booby hatch!

IT SEEMS that a certain group of fans have decided to have a little fun with us, and they have been sending in "fake" letters claiming to hear voices, and so on. The letter by John Poldea in our last issue concerning Miskatonic U. and the *Necronomicon* and *Das Unausprechlichen Kulten* was such a letter. We knew it when we published it, but, as we expected, the "boys" couldn't keep their mouths shut when it seemed they'd "put

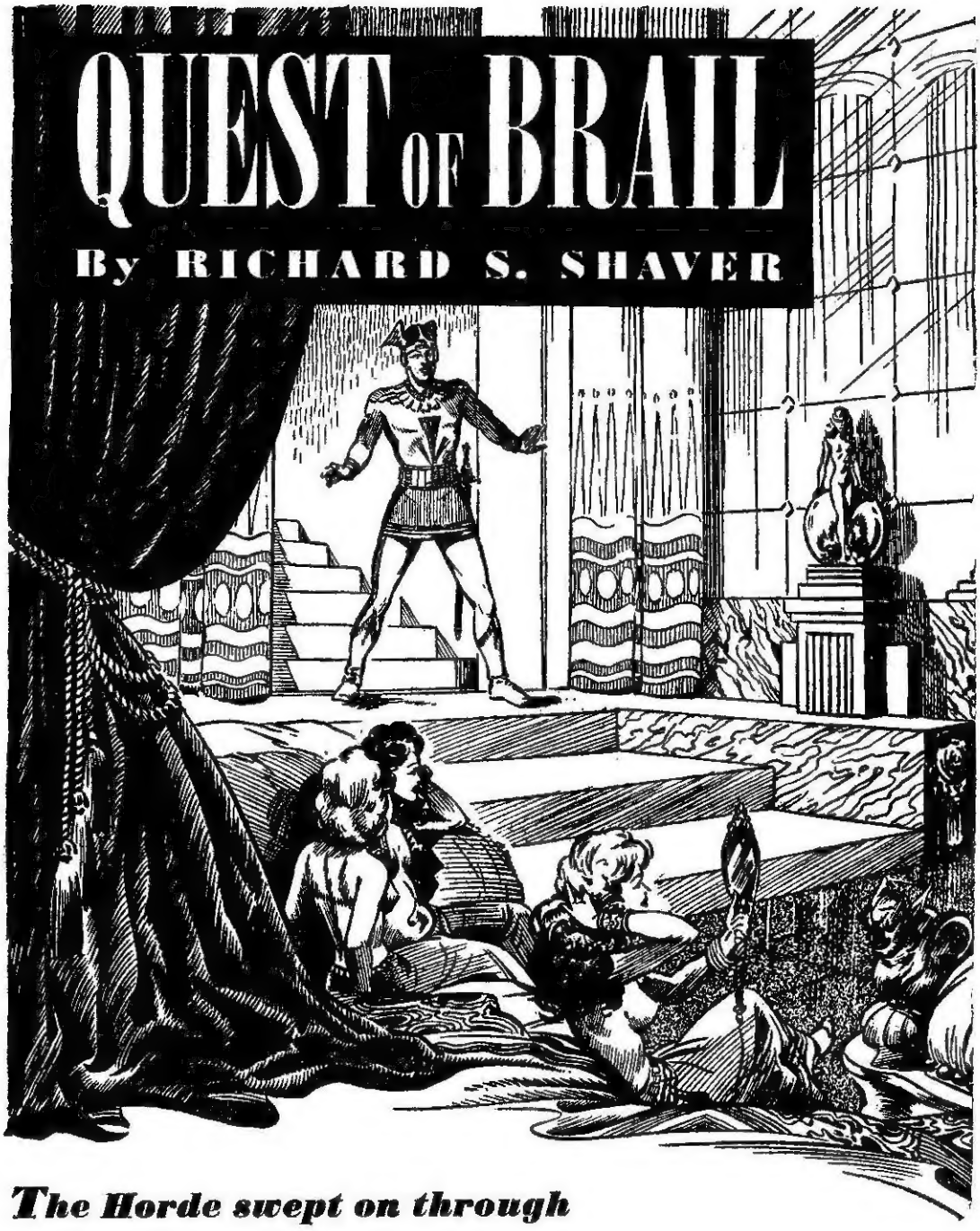
(Concluded on page 105)



"If I had a watch spring, we'd be the proud parents of a 150-lb. baby!"

QUEST OF BRAIL

By RICHARD S. SHAVER



The Horde swept on through space, conquering planets—but there was one world beyond their evil power; for its ruler was a goddess

Lori stared . . . such wondrous magnificence, such lovely damsels, such luxury—

"SO BEAUTIFUL—so magnificent a city! And I must fight a war to lose it! Deliberately lose a war!"

Brail, ruler of the planet Helgo and Emperor of a score of planets strung like matched pearls across the night sky, was, as usual, feeling impotent. His square, darkly ruddy face was grim. He stared out over the lovely city visible from the balustrade of his palace, Bersalt.

Bersalt, the huge and ancient palace of the lords of Helgo, had been built in the misty past by men of mighty wisdom and a now lost science. Added to and altered interiorly from time to time, the palace covered a half-dozen square miles, being in truth a city. Fabricated from polished rock, it leaped up strangely, an alien thing of blood-red battlements and tall, mysterious towers. Helgonians had long hated Bersalt for all it symbolized. For centuries revolt after revolt had flattened in despairing fury against its walls with no result but more death for the people. Only the present ruler's popularity was holding back the people now from seizing upon the chance offered to revolt while the Horde's invasion occupied the war fleets.

Brail left the balcony and paced impatiently into the great Hall of the Faces. His hand rumpled the heavy red hair that tumbled over his brow. The Horde, the hated Horde was on its all-conquering way to take over the Helgonian Empire as it had taken over so many great nations of space. He, Brail, must send his loyal men to death—to certain, unavoidable death. They must do battle and they must lose. By the black bowels of Mother Night, if he, Brail, were but ruler in truth, it would be different. His broad, red-bristled fist clenched fiercely, his teeth flashed. This was his chance—he would not fail. The Horde would win, and the play-acting would end.

Brail's mind reviewed the situation. . .

Helgo had ever been a poor place for the common man to live. For ages the use of pleasure vibrants had developed in secret and the rich, who alone held them, were all addicts. Their children, strangely perverted and deformed in both shape and character, had grown up generation after generation to form at last a fixed rigid class, the owners of the pleasure rays. Attached to this class were most of the young and pretty girls of the planet. These were seized as soon as grown to the age of attraction and trained for the slave marts, which were secret places to the people. From the slave marts they found their way to their cruel and powerful lord's pleasure palaces to contribute their short life to unending orgies.

The condition of these slaves might have been alleviated had there been any opportunity for these or for enslaved workers to attain positions of importance under the ruling class, but those who were expert in the use of the pleasure rays were sedulous in their care to madden and degenerate any of their creatures who showed ambition or capability so that subjection to the rays meant near idiocy for most of them.

This, however, had in time become true of the entire ruling class, so that in all Helgo there were but few men and women of power and influence who retained mental alertness. Among these was Prince Brail, now the Emperor, ruler by right of succession. He sat publicly upon the throne in Bersalt, his inscrutable expression hiding the astounding discovery he had made upon succession to the throne: that government was in the hands of madmen and that their secret knowledge of the mysterious rays was such that he must play

complaisant puppet or die.

With their penetrative vision rays which could see and slay him anywhere in Bersalt, he must do their bidding or perish. Brail had been obliged to accept the situation until some way opened to him for a change. His people believed him a wise ruler although in fact he had no more to say about rule than the least man in the empire. Yet the army liked him and orders from his lips were executed without delay or murmur, so that on the surface all was well with the government in Helgo. Yet the mad and cruel clique tortured and slew whom they pleased and there was no peace or safety for any man who did not possess the secret weapons. The common man's daughters were stolen from under his helpless, hating eyes; his sons recruited into the army or into labor crews at tender ages; his crops brought little or no profit to him when sold, and he and his wife were tormented from afar by unseen powerful rays in the hands of madmen and madder children. None of this was laid at the door of Brail, it was considered the workings of strange and malevolent beings dwelling in accessible underground caverns. For such was the known case on other planets.

Now, adding to the exigencies of daily unhappy living, news came from space of the Horde, sweeping on undefeated from sun to sun, and the poor of Helgo prayed on bended knee to their ancient, nigh-forgotten Gods, begging that the Horde might conquer, since the undefeated enemy might also defeat the evil that lay in secret hiding, making their lives unbearable. That this was traitorous to their prince could not be helped; the drowning do not split hairs about what they clutch.

BRAIL'S fiery hair caught the blue light from the third sun as he strode back and forth in the Hall Of The Faces. His thoughts were confused and bitter, for defeat might mean the amelioration of present conditions for his people, but it might also mean the loss of all the work he had secretly done in spite of the hidden watchers. Victory for Brail's forces could mean both the continuation of the present hideous situation in which he found himself and the chance to develop his plans further.

If his ancestors could see him, Brail, the son of Brail, a puppet under an idiot! They had conquered the galaxy, planet by planet, and he who should be the greatest of them all must slyly and purposely lose that tremendous empire, world by world.

That the Horde had some mighty secret power was undeniable and without a knowledge of its nature, how could they be beaten away from Helgo? Such were his excuses to his stupid masters. Yet fight he must, and that soon, or they would kill him before his plans matured.

His troubled thoughts ripened into action. He strode out upon the gallery surrounding the great bowl in which lay the space communicator.[1] His muscular fingers turned on the activator, the pearly cloud glowed luminously and then turned dark as infinite space. Obedient to his own recent orders there deployed within that blackness the lights of many spaceships, lights from his fleet now many *parsecs* distant. The vision-screen before him brought clearly the presence of Urdil, fleet commander. The man's voice came in over the audiphone.

"We have not sighted them as yet, my prince."

[1] Space communicator—a powerful conductive ray, focused by multiple lenses—with a thought augmentor and vision screen as subsidiary attachments—AUTHOR.

"When you do, bend every effort to isolating and capturing at least one ship intact. Then retreat and hold the position about Bersalt. We cannot afford another defeat like the last one and we cannot meet the Horde in successful battle until we know more about their secret methods."

"I hear and obey, Prince Brail."

Commander Urdil's likeness faded from the vision-screen.

Brail returned thoughtfully to his pacing in the great hall. From the walls the death masks of his ancestors scowled upon him as if resentful of his impotence. He could only wait with impatience for the capture of a Horde space-ship and perhaps from the personnel he might learn something of the Horde's mysterious invincibility. It was well worth a try. Fight he must, even with the sure prospect of defeat. He was sick unto death of enforced pretense, everlasting play-acting, duping of men whom he liked and admired. The farce would end with defeat and within possibility he might himself escape into some kind of anonymous freedom. This could not be if he were forced to inurement in the pit of Bersalt, his princely person a screen to hide those hated monsters who in reality tyrannized over Helgo.

He vowed with grinding teeth that this should never come to pass. Better rot in the Horde's prison than be instrumental for a continued hated misgovernment by the hidden rulers over his wretched people, who might indeed fare better under the Horde about whose treatment of inferior classes nothing definite could be learned as yet. His face, dark with conflicting thoughts, grim with concentrated will, lifted to the death masks that hung interminably along the wall opposite the wide windows.

"Better death than further serfdom," said Brail's low, snarling voice. "I'll crawl to these bloated masters of mine no more."

HE PUSHED one hand roughly through the thick red hair so characteristic of his princely line, the other going involuntarily to his girdle where he had once thought ingenuously to wear the dis-ray needle hand gun, but where now only a short jeweled dagger was suspended. His tightly compressed lips drew back against his white teeth as there flashed over him the hot but futile fury of his impotence under the real rulers of his realm. The gray eyes darkened as he wheeled to face the portal at the farther end of the hall, that door which he loathed as a symbol of his degradation, since through it he must yet go many times at the behest of those monstrous beings that existed behind it. His hand slipped down to his side, empty of any weapon. Not while the secret rulers reigned would he be permitted to handle what might well be turned against them.

Once again he strode with easy grace to the gallery overlooking the menticloud basin. At the subsidiary visi-screen he turned a knob slowly until he could locate the advancing air fleet of that invincible armada of the Horde. He leaned his tall figure toward the screen and concentrated upon those approaching space-ships. He enlarged the image of the foremost until the likeness of the pilot stood out with bold distinctness.

Brail studied the strong square face thoughtfully. The pilot's straight upper lip wore a small black moustache to which its owner occasionally touched one index finger lightly as if to reassure himself of the presence of a hirsute adornment that in turn did much for the frank countenance. The man's keen black eyes were fixed ahead

toward the goal of Helgo and Bersalt. The nostrils of the slightly flattened nose, that looked as though it had sometime stopped a fist or two, twitched noticeably, betraying the pilot's intense inner excitement.

Brail said aloud: "I like this chap. If the rest are like him, my people will be better off." Brail focused the lead ray of the great thought cloud on the face in the vision-screen. His thought pictures formed clear in the super augmentation of the great mechanism.

* * *

THE pilot's eyes were fixed ahead. Black and hot in the depths of his mind lay an image; a dark goddess smiled and drew him on. In the birthplace of all life, at the head waters of the river called Styx, under the roots of Yggdrasil the tree of being, deep beyond the last veil of consciousness, he sensed the warm, dark pulsation that carried within itself the answer to all mysteries.

About him were unwanted sterile things, old and forgotten, waiting for the wash of Time to sweep them up and off upon its heavy, dusty bosom. But Life is other than Time. Time is slow destruction while Life births forever as a plant puts forth leaves. To cease growing, he thought, is to begin dying and death was horrible to him as to all men.

"With my aid you may defeat dark Death. With my help you can grow and even live forever. I am calling you. Come to me for wisdom and guidance. Seek me out. I shall await you." This was the message the young pilot seemed to sense from that distant dark goddess whom he felt filled space ahead, blotting out the stars with unceasing, irresistible growth.

Lori drew a long breath of yearning for fulfillment of dreams that he knew might never come true. He was after all but a small cog in the mighty mechanism of the Horde; only a serial number among his shipmates. His mother had named him Lori, and the sound of that childhood name on his tongue, muttered half aloud, brought with it nostalgia for the days when he was not a robot pilot on a space-ship of the Horde, but an individual child, a personage small but important in his immediate family. He tried to check this current of thought, knowing well it would be read by the co-ordinator of his mind-team, to his detriment, and following his effort there crackled through his brain the too audible voice:

"Asleep on duty, B23X? And you a chief pilot? What in the name of the gods were you dreaming?"

Lori snapped to alertness, black eyes sweeping the instrument panel, hands passing rapidly over the controls. The fleet formation on the visi-screen was intact and he relaxed thankfully.

"An old dream of mine, of the dark goddess of life. I shall stay awake now," he spoke mentally to the co-ordinator.

"We should sight the enemy within the hour. On your toes!"

The mental voice of the co-ordinator was the voice of his own will, so long had they trained together, thought Lori. He told himself with savage resentment, it was too much so. By a strong effort of his trained will he concentrated on the work to which he had been assigned, clearing his mind withal regretfully of those illusive but alluring dreams of the beneficent offerings of a dark and powerful goddess.

* * *

THE soft susurrus of silken garments caught Brail back into consciousness of his present surroundings; he turned quickly. A girl, young and lovely, subtly feminine in every movement of her lithe body as she drifted

toward him up the hall, met his gray eyes with a smile that lighted up her oval, charming face.

"My dear lord, are you to have no rest until Bersalt is—" her voice trailed off into significant silence.

Brail beckoned her to his side.

"Look here, Mirrla. What would you think of this Hordeman pilot? Is he not an attractive fellow?"

Mirrla gazed long at the vision-screen, nodding slowly.

"He can be trusted, my lord. He is truly good. But he is troubled . . ."

The prince turned off the vision-screen.

"Can the other Hordemen be like him? Or is he possibly an exception to his fellows?" he cogitated aloud.

"Have you asked Commander Urdil to capture one ship intact, as you planned" asked the girl. "I do hope it will be this one. Then you may be able to learn something of the Horde's secret weapons, for I do not believe that pilot is a contented man. There is something resentful and bitter in his expression."

"My wise Mirrla," murmured Brail, passing one hand caressingly drown the waving length of her fair tresses.

Under the lightly tender contact the girl's eyes closed and a blissful expression flitted across her charming face.

Brail breathed a gusty sigh.

"I must make a report to our glorious rulers," he commented drily as he paced down the hall toward the loathed doorway, his arm about the girl's slender waist. "Our glorious belly-worms," he added, in her ear.

"Can you not rest with us a while then?" she pleaded softly as they paused before the portal.

He shook his head, whispered, "If I loaf, the enemy Horde might lose." Then, aloud. "No, my girl. I must watch over the fleet maneuvers so that the moment our captured prize is brought to Bersalt we may be ready for a questioning of her crew."

Mirrla touched his temples lightly with both delicate hands.

"May the Dark Goddess protect you, my dear ."

* * *

LORI concentrated savagely on the space-ship's controls but his mind wandered afar, for the Helgonian fleet had not yet been sighted and there was little to do but keep the ship on her course. Recruited at sixteen by the Horde's agents, as were most of the youth of the planet Keshen, B23X had seen but little of life save the interior of the battleships of space, for the Horde was eternally at war, adding to its continually increasing empire as it absorbed one after the other of small neighboring planets. The discipline in the training corps was Spartan, the concentration in mind synchronization broadening as the thoughts handled by students were infinitely more numerous and complex than those of the single individual. The strength of the coordination command signals was too strong, subtly so, in that the individual will was in time affected and no Hordeman felt initiative will of his own, when the synchronizing helmets were donned and the fleet in action. Land liberties were few and oftenest under conditions where entertainment lacked, so that the mens' few free moments were taken up with woman yearning and futile dreams of freedom to be theirs when the seemingly endless struggles would at long last be finished.

The young pilot had his own dreams, bizarre and unusual to such an extent that he never shared them with his comrades, more outspoken than he in their nightly dreaming. For some years Lori had been meeting in his dreams the same tall, green-skinned witch

queen, officiating over strange love ceremonies where he served as acolyte. He had come to believe that no flesh-and-blood woman could possibly match the appeal of this alluring creature who lived on magically in his mind when he wakened each morning from his dreams of her. He counted her love a greater one than he could find elsewhere, and he called her Norla. The only other vision that drifted through his sleeping mind was that recurrent one of a Dark Goddess of Life.

She filled space mystically in a certain quarter afar and called to him as a mother calls to her strayed child. That these visions were anything but vivid dreams Lori did not have sufficient knowledge to realize. With deep yearning his innermost self reached out to that Dark Goddess whose call sounded so alluringly, with such strong promise, in the ears of his mind. The Hordeman soldier's life, subordinating as it did everything that might make for individuality, revolted the young pilot and only in that deep beckoning from the far spaces could he sense any hope for future liberty of thought or will.

Lori watched the obstacle indicator ray dial and forward vision-screen into which the space-ship bored with incredible speed. If the Horde were beaten back, his own capture might not be such a dread calamity. Could it not be possible that life under Prince Brail might hold more agreeable vistas of noble adventure in living than the dull life of a Hordeman?

Dim but unfailing, that soft whisper touched him through space. The Dark Goddess flung temptingly infinite promise of goodly and gracious living before the eyes of his mind. Lori's even teeth gritted with his determination to learn the visionary or real character of that Goddess, as well as her qualifications as leader and guide. These visions of her, experienced by many, were ignored by other spacemen as meaningless phenomena of space, like mirages.

Sitting at the space ship controls on one horn of the Horde's attacking crescent, Lori became suddenly aware that the entire ship was shaking like a Venusian dancer's G-string. What in Hades—? He had never experienced this sort of thing in all his years on the battleships. The vibrations grew faster and finer until he felt that every fibre of his body was being shaken apart from its fellows. His hands slipped down from the controls. His brain dulled and before his eyes black night dropped smotheringly upon him.

He slipped unconscious from his seat.

* * *

BRAIL turned the dial of the hated door. Behind it lay the murky heart of his empire, that group of the powerful rich whose evil habits had at last forced them into building this hidden place for those repeated debauches which consumed the lives of the best and loveliest in the empire. Brail was but their man, their thing, their figurehead whose upright life was to dupe the people into stupid loyalty. Brail, who despised and loathed them, continued ever to hold his place, that he might serve at times as a buffer between their cruelty and his victimized people.

Brail's husky voice murmured the secret words and the door opened slowly at his touch on the dial. He passed through a long corridor after the door closed behind him and emerged into an immense vaulted room, the ceiling of which depicted the blue canopy of heaven, lighting the apartment with a brilliantly spreading glow from a miniature sun. Over a hundred slave girls, their nude bodies bathed in the powerful spreading stim-rays, were scattered in groups or singly about the downy couches and cushioned reclining chairs

upon which lolled luxuriously those members of the wealthy class who secretely ruled Helgo through Brail's compulsory complaisance.

Closer within the stim-ray circle knelt a dozen beautiful women and young girls who had become hopelessly addicted to its induced pleasures. These addicts were in the condition in which the Fat Ones desired them to be, praying endlessly for a scant trifle to ease their hunger; willing to render up their lives for one sweep of its intensified thrills. Within the heavy wire enclosure about the stim the endless indulgence continued, carefully regulated for the Fat Ones but cruelly augmented for the slave women, whose doom was too frequently death from the terrific nervous over-stimulation.

Brail stood there for a long moment, staring with narrowed gray eyes at the orgiastic scene. As he gazed upon that mad tangle of flesh with fastidious shrinking, he thought how different the picture could be under the direction of those Wise Ones who had originally built the stim. He could see the velvet bodies moving slowly and beautifully, dark, glistening eyes seeming to mesmerize the onlooker and gracefully beckoning hands stretching out with allure. Disgust at the mad mess before him gave Brail a sensation of nausea. This endless indulgence unto death—these burning, swooning bacchantes—these fat, formless masters of his . . . he brushed his hand involuntarily across his gray eyes as if to remove reality so that the brighter dreams could shine through uninhibited.

"WOMEN!" thought Brail. "Women!" How little in truth do these Fat Ones know them, to make of them more vessels of ignorant indulgence to make of them mindless slaves to an idiot's false desire." Brail knew the growth potential in these stim rays, and he thought with keen yearning of the dreams that haunted him of voluptuous- lipped queen-bee women of vast superiority of beauty and being which the stim rays, intelligently handled, would have made of those wretched addicts. In his dreams those women hung in the last veil of his waking consciousness, their lips that curled into ready laughter, their long rich bodies moving with grace, their voices caressing the ear with song-like talk of infinitely clever sounds and meanings of which he could never tire. Oh, if he could but take over the stim-ray machines— He jerked himself into reality with a drawing-back of his powerful shoulders under the gold-encrusted jacket. The rays were in the hands of the Fat Ones, the rich and cruel and degenerate ignorant who had in ages past murdered the inventors to protect the great secret of their use. With those rays the Fat Ones could follow Brail to great distances and slay him were he to revolt against their idiotic rule.

The prince stepped forward into the room with reluctance for his clean soul revolted ever at the obligation to present himself before the Fat Ones as their vassal. He addressed himself to a fat prince whose couch stood on a slightly raised dais.

"Great Prince of Helgo, our fleet is by this time engaging the oncoming Horde's van. Should the Horde prove once more invincible, you must be prepared for instant flight. Thus far none have been able to withstand them and we, too, may fall before their secret weapons."

The fat prince moved his thick body sluggishly, his deep, oily voice, hardly human in intonation but merely the instrument of an insatiable appetite, issued as if reluctantly from his swollen lips.

"I have long been prepared. Look you to the battle." The voice sharpened to a cruelly ominous note. "Be sure we meet with success, little princeling."

Brail's shoulders jerked again. His square dark face flushed redly at the threat which he dared not resent openly.

"Life is sweet, Prince Brail," drawled the Fat One, showing his teeth in an ugly smile.

His hand gestured wearily to a pillar, from a metal projection of which a woman was suspended by her long glossy braids of hair. The poor creature's pain-wracked body jerked slowly under the influence of a pain-vibrant. That she was near death if the pain-vibrant continued its work Brail saw, since she must have hung for days under the impact of the pain impulse rays which knotted and shook her body as if she had been a fish impaled on a barbed hook.

"DEATH, my Brail, is never welcome or agreeable," murmured the Fat One thickly, watching with pride the victim of his dismal cruelty and obviously convinced that the puppet prince would take the lesson to heart.

Brail queried softly, "What was her offense, Prince Onil?"

He strove to conceal his repugnance at sight of that weary, writhing body, so beautiful, so near to death's relief.

The Fat One wailed with petulance. "She bit me."

"Love often bites," Brail murmured. "Since you are tired of her, give her to me, my Onil. Gratitude is a good stimulant to love and she is by far too lovely for a death doom. An artist like you," he insinuated persuasively, "cannot really desire to destroy such beautiful flesh, when there are so many women less desirable whose long-drawn-out agonies could be quite as intriguing. Give her to me!"

"Take her! Take her away. She bores me. She is too long in dying. She is too modest to suffer well. But no dallying now with love," the thick voice warned. "Back to the vision-screen, Prince. Commander Urdil may stand in need of your counsel."

Prince Onil dismissed Brail with the gesture of one raised fat finger and bent his gaze upon a lovely woman kneeling near him under the stim ray, her face portraying almost agonized pleasure as she relaxed to the vibrations.

Prince Brail strode to the pillar and switched off the pain ray. He pulled the dagger from his girdle and slashed at the rope knotted to the swooning woman's long braids. He snatched up a cloak, and flung it about the quivering, relaxed body, which he lifted in his powerful arms. He made haste to leave that den of automatic, destroying lust, scowling as he strode down the Hall Of the Faces, thinking as he went with his burden of wrecked beauty how strange and unjust was that social system which gave to beastly monsters a plentitude of feminine beauty, the only use for which was to pander to monsters without true desire. They had no true desire for beauty or women, but only the hideous lust of an automaton.

AT THE entrance of his private apartments Brail motioned the guard to open the door. He carried the limp body inside. At his entrance to the open court centered by a sparkling pool of water in which several slave girls disported themselves gaily, Mirrla sprang from her seat before a tapestry frame upon which her clever fingers were depicting the likeness of her loved lord upon a golden throne whence

he dispensed justice.

"Poor thing!" she cried involuntarily.

Brail laid the drooping, swooning body tenderly upon a couch.

Mirrla bent over the other woman, pitying eyes gentle and mournful. Other slave girls began to gather. Those girls were the puppet prince's sole confidantes. None but what owed him some debt of gratitude for their rescue from one or another of the Fat Ones. This woman was not the first victim of the hidden rulers' tortures whom the slave girls had cared for and brought back to living loveliness and some modicum of hope in life.

"Treat her with the anaesthetic ray," Brail suggested. "She has suffered too much and too long and her best chance is a deep, induced sleep."

Two of the maidens wheeled a portable lamp to the couch where the rescued woman lay, breathing feebly with an effort. They switched on the lamp, from which a blackish opalescence streamed. That ray would block off the nerve impulses and stop all body sensation.

Brail watched as the women clustered about. Some set to work kneading and massaging the painfully knotted muscles, smoothing out the soft pain-wracked flesh, rubbing in soothing oils. One of the girls knelt at his feet, wrapping her soft arms about his thighs and lifting her adoring face to meet his grim gaze.

"Think no more of what has been, my lord. You have enough responsibility without suffering for your creatures, all of whom love you. Soon this poor thing will worship you as do we, and find her truest happiness in anticipating your every wish."

The prince's dark face softened. His left hand pushed up the heavy red hair and his right twisted softly in the girl's bright locks.

"My Reema, remember that if we fall into the hands of the Horde, you and Mirrla and the rest of you lovelies may have a chance for life if you feign joy at being liberated from my dominion. Let them think you hate everyone in the palace. That may be your best way to serve me. We know but little of the Horde and they may be kinder to serve than are the Fat Ones."

"If they put you in prison, dear lord . . ." she faltered.

"Then you will come to stop the whips and the fire tortures and the pain rays, if you can."

"We will free you and hide you among us," she cried wildly.

Brail gave a short laugh.

"I thank you for your plans, Reema, but I doubt your opportunities to carry them out. Only the Dark Goddess can know what you may be able to do, for you are far from stupid, my girl."

He thought to himself, that if the palace were to fall, the sooner the better. Yet he must go through the motions, if only to preserve his own life from the death rays in the hands of Prince Onil. He had to be on his way, back to the thought cloud. He released Reema's bright hair, tossing it playfully about her bowed shoulders.

"Mirrla, I go. If I am needed, I shall be in the gallery by the thought cloud."

Mirrla, wide eyes meeting his in an agony of apprehension for his safety, nodded slowly from her place at the couch of the sleeping woman. She watched the beloved form of her lord as he disappeared through the guarded entrance to the apartments. Then she returned to the work in hand, giving her instructions to the slave girls as they stood about the couch.

ONCE again confronting the bowl of the thought cloud, Brail watched

the pearly swirl darkening into the black of space. His thoughts wandered to the Helgonian fleet. He reproached himself remorsefully because he admitted his lack of interest in the final result of the ensuing battle. He realized that even his actions as he followed the natural course of leadership were largely automatic. He could bring no reason into the forefront of his mind for the betterment of Helgo should the Helgonian fleet beat off the space ships of the Horde successfully. He bent his will upon the thought cloud and switched on the vision-screen.

In the depths of the black cloud there began to take shape a wide crescent composed of thousands of great space battleships that were the Horde's and opposing them the thin triangle that was the Helgonian fleet. Like a huge wedge the triangle aimed at one bow of the crescent and as the two opposing formations neared, ship after ship burst into flares of incandescent brilliance and then floated, masses of wreckage, out of the fight.

Brail, observing with keen interest the apparently similar qualities of the opposing weapons, mused that the losses were about equal and as far as he could judge the Helgonian space ships were superior in speed. He dialed a close-up. The great horn of the Horde's attacking crescent was badly chewed and the point of the Helgonian wedge bit through, then broke up and formed into a circle that cut off two of the alien space ships completely from their formation. He recognized as he watched that Commander Urdil was following his instructions. Great tractor rays from the entire Helgonian fleet held the two enemy ships in the center of their circle and began to draw away in this formation from the attacking crescent.

Knowing well how a tractor ray, properly interrupted, can shake a ship until the whole crew drops insensible, the prince knew now what Commander Urdil had done to the silent captive spacers. The encounter had cost Heglo ten great warships and the enemy had lost but six, which included the two ships captured intact. The Helgonian fleet was fortunate enough, considering the odds against them. Brail watched with approval the swift retreat of the Helgonian fleet, realizing that the advantage in speed was not the only reason for the rapidly increasing distance between it and the invaders' fleet. Beyond doubt the commander of the Horde suspected a trap, in view of this too-easy defeat, if defeat it could be termed; his pursuit was cautious and almost appeared reluctant. It was obvious that the enemy was in no rush to pursue hastily a fleet that sped away while yet there was some hope of successful combat. Such tactics were almost too pointed.

* * *

HOW long he remained dead to the world Lori could not tell, when he first opened his eyes. He lay on a couch in a small cell of solid stone walls. At his slight movement he felt the weight of the irons locked about his ankles. He swung his feet heavily to the stone paving and sat up on the edge of the couch and saw then that he was not alone.

Muffled in a long cloak, a girl stood near the barred door. As Lori stirred, she spoke swiftly in an alien tongue, directing her speech at a microphone in her hand. Almost immediately the iron door swung open and a Helgonian offcer came into the cell, drawing a key from his girdle as he came. He motioned to the young pilot to swing his feet back onto the couch and at Lori's comprehending obedience, the officer unlocked the irons. He beckoned the young prisoner to follow and left the room

with the girl, proceeding up a narrow corridor that opened into a long hall and a waiting elevator.

With its passengers the elevator rose, past floor after floor. At last it stopped and the girl touched a button that opened the door and motioned to Lori to follow her. She tripped lightly down the hall and opened a door, stood back, and gestured for the young pilot to enter. Lori hesitated on the threshold. Such a room he had never seen in all his Spartan-trained life. The code of the Horde had been 'simplicity, obedience, sacrifice.' This was such an apartment as Lori had never even dreamed could exist. He stared, stupefied, at the pillars glittering with jeweled carvings in wondrous colors, at the rich furs that were scattered here and there on the marble pavement, at the gorgeously brocaded hangings and tapestries that hung against the walls. His eyes widened at the many sleek, bejeweled maidens stretched on downy divans like great beautiful cats. Most of all, he gazed last and longest at the central figure of that magnificence, the red-haired young man who sat on a dais above it all, one hand twisted lightly in the bright hair of the girl who crouched like a slave at his feet.

In the code of the Horde, luxury was a sin, but Lori's yearning desires betrayed his secret longing to live amid s u c h sumptuous furnishings, s u r - rounded by such lovely women. As he stood, almost stupidly staring, wide black eyes amazed, one of the women rose from her divan and, pouring a golden goblet full of purple wine from a chased and jeweled golden jug, approached him and proffered the beverage. She smiled encouragingly as she held out the goblet and Lori, accepting it thankfully, smiled back at her, wondering at the strange pallor of her creamy flesh and the tiny flakes of sparkling gold that glittered everywhere through her heavy black tresses. He flung back his head, lifted the goblet to her as if toasting her beauty, and drained the goblet of its stinging wine. She took the emptied goblet and motioned him to go forward to the dais.

THE prince with the red hair also lifted a beckoning finger that gestured to a nearby chair over which lay a network of fine wires that led to a cable lying on the floor. Lori bent a suspicious look at the wires that seemed to promise trickery, but the maiden pushed him back gently and he sank into the chair. Another slave girl approached and laced upon his head an odd-shaped metal cap, smiling as she did so. He heard a light whisper in his own familiar tongue as she bent over him.

"Be not afraid. The Red One is kindly. You have nothing to fear from these wires."

Lori stiffened, still suspicious, and sat motionless, awaiting the event. He became aware of a silvery mist that began to form between himself and the throned prince, a mist that as it grew thicker shaped strangely into pictures and words and he realized with a start that the pictures came from his own mind as did the thoughts there framed into words.

At this betraying mist the Red One looked long, reading his captive's inmost self. Then words issued absently from his lips, as if he spoke only to himself.

"What is the secret of the invincible strength of the Horde?" asked that voice, with a kind of grim determination.

Too late Lori realized the intent of the Helgonian prince. He strove in vain to blank his mind, but in spite of his wish he saw on the thought cloud

the picturing of those long years of mind-team work, when he and his group of fellow entrainees had learned to think as one man, although a hundred minds together. There lay betrayed by his unwilling thoughts the methods by which the group had been taught to sink their wills until their wills became the will of the co-ordinator at their head, in such a way that any question asked of the group was immediately answered by that one of them best fitted to reply. Pictured in the mist were the years of maneuvers, when they had learned to see through the eyes of all the men in all the vision-screens of all the ships; to see all possible tactical answers to a problem in space maneuvers in all the minds and help the co-ordinator check for the best one. This secret now lay bared to the absorbed eyes of the ruler of Helgo, the mental co-ordination of the minds of all the crews in a whole fleet of warships which had taken so long to develop into the marvelous and beautiful weapon it had become at last.[2]

[2] The Multi-head—The single brain of one man is a kind of multiplied result of the thinking of many little animals—the brain-cells—who accomplish the wonder of complex thought because they are in instant communication with each other—they each know all the time everything the rest know—when they wish to know it. This is due to the nerves which keep them in contact—conscious each of the others' thought and all obedient to the central will of the brain.

Now, in telepathic communication by use of thought augmenters, this same multiplying consciousness works out almost automatically to create a great brain out of many little brains. The men become automatic parts of a greater thinking mechanism, by virtue of the instant cognition each of the others' thought—of all the others. This automatically multiplying complexity of thought and completeness of answer was used by the Horde to create a one-brained fleet of space ships—a perfect co-ordination of thought throughout the fleet. Working with such mechanisms would tend to make men much more intelligent as individuals, since the brain would customarily handle a large multiple of the number of thoughts one man alone handles.—AUTHOR.

Brail mused aloud: "My good pilot, the secret of yours will do Helgo small good in this present crisis, so why trouble yourself because you have unwillingly betrayed it?"

Lori could not speak for very chagrin.

BRAIL'S voice went on impersonally, but with a warm undercurrent of friendliness.

"What would you most like to do, pilot, if you had the resources to follow your desires to the utmost?"

Lori stared as his traitorous mind threw into the thought-cloud his cherished dream of a space ship of his own, himself at the controls, heading for that deep black among the stars where he had so often dreamed that the Dark Goddess of Life dwelt, where Death was a prohibited stranger. And then Lori saw his latest dream, himself in a room in that spaceship, a room luxurious as was this room in Bersalt's castle, himself enthroned on a dais, twisting his fingers sensuously in the bright hair of the fair slave girl at his feet.

The voice of Prince Brail broke in upon his dreaming.

"How long do you think it will take your friends to conquer Helgo, pilot?"

Lori's mind involuntarily made swift, unwilling comparison of the strength of the Helgonian fleet with other vanquished fleets and the result of his mental cogitations lay clearly on the thought cloud; four or at the most five days, and Helgo would be at the mercy of the Horde.

"You are undoubtedly correct, my friend," Brail's voice admired. "But do you sense no exultation at our approaching annihilation? Do you not love your comrades? Do you wish them to fail, to die?"

Lori could not reply. His fixed attention was upon the thought cloud and

the pictures he portrayed.[3] There he read his hatred of the Spartan code of the Horde, which denied its adherents pleasure or luxury until some far day of achievement; the code which placed all their wills and energies in the control of the co-ordinators. The young pilot's black eyes smouldered with sudden rage and resentment as he saw before him the layout of his secret hatred of the never-ending training and drilling, his longing for a sweeter, more satisfying way of life, his desire for something to call his own. . . a wish denied. All these things lay in swiftly changing pictures between himself and the red-haired prince on the dais. He knew now that he had welcomed his dreams of the Dark Goddess as a possible indication that there might be an avenue of escape from a life of harsh discipline, in which he and his comrades were denied all natural urges toward pleasure and luxury.

Prince Brail untwisted his hand from the bright hair of the slave girl at his feet.

"Conduct this man to our private detention rooms and see that he is entertained as befits his character. We may have later need of his services as a pilot and he is no lover of the Horde," said Brail and laughed.

THE bright-haired girl, small and slender, with a laughing, mischievous face like a precocious child's, sprang to her feet and held out her hand to Lori, who took it submissively and let her draw him out of the room, followed—he observed through narrowed eyes—by a uniformed guard. Down a corridor and a long flight of stairs the girl led him, to stop before a great door which the guard opened. She gave the young pilot a gentle push over the threshold and then the door clanged shut and he heard bolts snapping into place.

He looked about with interest for the room was not a cell but a large, well-furnished apartment, simple but comfortable. A table stood at the farther end, bearing the remains of a plentiful meal, and about it on divans reclined half a dozen gorgeous beauties, as well as two men who turned at his entrance and now hailed him with shouts of welcome. He recognized two members of the crew from his own ship.

He laughed softly to himself as he saw and understood the somewhat vacuous expressions on their faces. Like himself, they had been in continuous action with the warring Horde for a period of several years and women had played a small and obscure part in their lives, although consequently a greater part in their minds. Thrown abruptly into the company of these harem beauties clad in filmy draperies and sparkling with gems, his comrades had found themselves somewhat at a loss at the liberality of their captors, who apparently asked no more of them than to eat from that bounteous table and make love to those voluptuous women. They simply could not explain the situation, although they had natur-

[3] Thought-screen projection of images.—The stereoscopic principle is here developed to a larger grasp of the image in three dimensions problem. Several little camera eyes in the helmet translate into electric impulses the images in the brain which are revealed to the electric eye by penetrative rays. These are enlarged by the television apparatus and re-projected into the thought screen cloud, a luminous gas containing fluorine vapor and other similar chemical vapors. These projections taking place from several points synchronously arranged so that the image in the gas-cloud appears to be three dimensioned, although if looked at from below it would be like looking at the back of a false face. In legends the trolls were supposed to be hollow in back and slept stacked together like false faces. This legend corroborates our theory that ancient magic apparitions, etc., were accomplished by the use of hidden ancient apparatus found in caves deep under the surface; the apparatus was left by the ancient God-race and is the source of the magic legends. —AUTHOR.

ally found it very pleasing.

Badi, blue eyes a-sparkle, sprang from his divan with a veritable barrage of queries.

"Where have you been, Lori? Has the Red Prince questioned you? Look at those girls! Pity they don't speak our tongue but they seem willing to learn. Why are some of Horde's captured men housed so splendidly, fed so well, given such delectable beauties for their entertainment? Answer me that, my Lori, if you can."

THE dark, serious-faced youth on the other divan shook his head with grave misgiving obvious in his expression.

"It smacks of something so strangely unlike our own methods with prisoners of war that I do not like it." He stopped short, then stated again, "I do not like it at all."

Badi shouted derisive laughter.

"Dirli is suspicious of all but torture," he roared. "Me, I am satisfied to have the red-haired prince take a look at my head and throw me—not to the lions, but to the ladies."

The dark youth continued to scowl portentously.

"Instead of the usual questionings under torture, this mysterious luxury," he muttered. "It's entirely unnatural."

"Forget it, Dirli. It may be that the Helgonian prince has an idea that we can be more useful to him if he treats us well than if he puts us to the torture," Lori suggested, his heart heavy at the recollection of the unwitting betrayal he had made under the influence of the powerful electrical contrivances of the ruler of Helgo. "I do not really know whether he is saint or devil, but I am assured there is more behind his forehead than a vacuum. If he plans to use us, he would not begin by making us hate him."

"Hate him? Ha, when he has treated us like visiting ambassadors? I for one prefer his kind of treatment to the life our own people have forced us into," Badi declared with emphasis.

Lori's black eyes sparkled.

"So you, too, are not in love with your place in the armies of our Horde," he accused lightly.

Badi shrugged his shoulders with a careless air.

"What is the use of trying to conceal what these slave girls can read in our minds, even if they cannot talk with us?

Lori recognized the helmet his comrade lifted from the divan in explanation.

"It works. I've tried it out," Badi explained. "They can't understand our language, but they can read our emotions as reflected in my mind and I can read theirs. It is like pictures."

"Look out for the toys a captor gives his prisoners," warned Dirli portentously.

"Dirli hasn't used his helmet yet," grinned Badi.

"It is well for us to learn what we can about these people and this place, Dirli," the pilot said decisively. "It is all very mysterious. Put the cap on one of the women and let us see what it's all about. I'll wager you've both been too busy making love to think about our situation."

Dirli asked, a curious glint in his eyes: "Aren't you tired yet of high efficiency?"

"If this kind of prison life is to be our future lot, I'll not be the first to quarrel with it. As for efficiency, when it's applied so agreeably to our own personal problems, it may not be such a poor thing, Dirli."

"Badi is right," Lori agreed.

"Of course I am," Badi laughed. "This is like a dream heaven."

I AM sick to death of efficiency when it uses us like tools of little value and permits us no personal life," Lori went on.

"Well, so am I," Dirli growled, "but I'm suspicious—"

"Of what? None of us seem overpensive at our imprisonment."

"Let us be efficient enough in our own interests, for the first time in our lives, comrades, to learn all we can of Helgonian character and customs, and see how we can apply our knowledge to freedom from the Horde's hard discipline which has always held us down and forbidden us the least real joy in life."

"I'm with you, Comrade Lori, Dirli said more cheerfully. "I'm sick of inaction and ignorance of our real situation."

"You, Badi?"

"Of course, of course, I'm with you."

"I want to live like a man, not a mere fighting machine," Lori said sharply. "You both know as well as I that in a few days at most the victorious Horde will sweep over this place. We will be back on a ship and off on some other expedition against another peaceful planet. We must somehow manage to escape."

"Nothing but death will reward us if we continue with the Horde. Our leaders are drunk with conquest. Our lives are of little moment to them. Why do they fight unendingly? What is the goal of their ambitions?" Badi asked, puzzled.

The three men stared blankly at each other without speaking for several minutes. It was perhaps the first time they had actually questioned, other than in their most secret thoughts,[4] the significance of the Horde's years of conquest. Those rulers whom they had never seen, yet whose lightest whims became the commands that pressed upon each co-ordinator and through him to his own group of men, what were those rulers?

"Give me that cap," Lori demanded.

He gestured to the nearest of the slave girls, all of whom lay supine on their divans, watching a scene they could not understand. He gave her the cap, motioning her to don it. She placed it on her head, took his hand and led him to a divan, where she sank into the luxurious cushions, drawing him down beside her. She gazed, as did he, at her thoughts displayed in beautiful, slow-drifting pictures between them in the misty cloud that formed.

She thought of her childhood on a Helgonian farm; her development into a lovely maidenhood; her seizure one night by a party of armed slavers, her sale in the secret slave market of Helgo, and her delivery to the Fat Ones. Lori flinched at the portrayal of wild debauchery under the stim rays that followed.

Badi and Dirli stood watching the pictures of that evil life that lay beneath the surface of Helgonian placidity; the never-ending indulgences of the fat secret rulers with their cruel, crazed minds. They stared at the girl's suddenly determined face as she leaned toward Lori appealingly and pictured the wretched truth of the murders by those rulers of the best minds in Helgo lest some upright prince might penetrate their secrets and betray them successfully. All this the girl showed the three Hordemen.

THEN she showed how she had offended by holding back against the degrading, habit-forming stim rays; her failure to be sufficiently responsive to the Fat One's sensuality; her obvious lack of desire for those degenerate bod-

[4] Where men's thoughts are always heard by many—they learn to think a set of accepted thoughts in self defense.—AUTHOR.

ies of her masters. There followed her resale, as the masters tired of her coldness. Her appeal to Prince Brail, the puppet ruler, was shown, and how he had placed her here until he could find a suitable use for her. Clearly there stood out through all the visions the slave girl's admiration and respect for the red-haired prince of Bersalt. The girl removed the helmet when she had reached the end of what, had she had the ability to speak their language, would have been her recital to the three Hordemen.

Lori had begun to see into the situation shrewdly.

"This prince, comrades, is not a happy man. He rules, but only as a helpless puppet in the hands of the hidden masters of Helgo. I do not believe he wishes us ill; I am sure his intentions are quite the contrary. He may prove a friend in need, if we meet him frankly and honestly, as three men who no longer desire to be mere tools for the schemes of the Horde rulers."

Badi growled: "We have never seen our rulers, Lori. What if they, too, are degenerate madmen like these Helgonian rulers?"

"That may well be," agreed Dirli darkly. "Have they ever permitted us any diversions that might distract our minds from their wishes? Perhaps they are holding secret pleasure apparatus also, as these Helgonian secret rulers are doing."

Badi's resentment showed plainly in his next words.

"They force upon us a life of endless effort and Spartan denial under their policies and deny us anything that might dull the edges of their perfect weapons. Why have they wanted us to be their perfect weapons? Perhaps it is only to make all of space safe for the satisfaction of their monstrous appetites, to chance as little as possible the loss of their grasp on their endless pleasures."

"If that is the goal of the Horde's drilling and warring, to preserve to some fat idiot his sensual amusement with the bodies of the common people's women, why must we let ourselves be sacrificed when we get nothing whatever out of it all, for ourselves?" Dirli demanded forcefully.

LORI was silent, his thoughts busily engaged upon the endless and diverse amusements of those mad rulers. He thought how infinitely to be desired was this stimulation and the beneficial ray which made the users strong and healthy. He understood for the first time, it seemed to him, what life was about. Life with such apparatus was infinitely richer than life without it. Rage began to burn within as he sensed intuitively that the Horde's rulers undoubtedly also possessed such pleasures in which they indulged at will while denying even the knowledge of them to the men who gave up every luxury to the code of the Horde—'simplicity, obedience, sacrifice, victory for the Horde'.

"To hell with the Horde!" he raged aloud in savage fury. "The Horde is a tool, a dupe of a crooked bunch of supremely selfish paunches back on the home planet. We've been fools, men, fools."

Dirli joined in, "I've suspected for some time that the Horde's growing power through the centuries has been fostered as the dupe of a clique too self-centered to give its soldiers even a taste of this infinite pleasure in which they wallow like fat hogs themselves. The Hordemen have been taught to deny themselves women, for fear women might divert their energies from the services of the Horde's masters and their ideals. One for all? Bah! It's

'For one, all.' What a stupid dolt I've been."

"I for one do not intend to return to the ranks of the Horde," Lori announced with determination. "I shall not submit my mind again to the coordinator with his fierce loyalty. If I am captured and refuse to re-assume my old duties, it will be prison for the rest of my life, or torture to the death. Comrades, there is no return for either of you if you feel as I do. We must escape from Helgo but we must also escape from the Horde."

Badi pondered: "Do you think the red-haired prince might accept our services? Somehow I feel his intent is fairer, more honorable, than any other ruler I've ever heard of."

Lori looked thoughtful.

"If he is serving ideals that make for a wider life for common people, then I'm for him," he said at last.

Dirli grunted assent.

THE captive women, long used to the excesses of the love orgies of the hidden ruling class, were much amused and attracted by the innocence and backwardness of the three Hordemen in matters of love. Exposing to each other the inmost recesses of their minds, by means of the thought cloud mechanism, they soon knew each other more intimately than could have been possible in any other way. In the understanding of each other thus formed lay a strong base for a growing friendship and between two of the couples genuine love based on admiration and understanding came into being.

Days fled swiftly, those few precious days that were to pass before the Horde over-ran Helgo. There was nothing for the captives to do but talk, eat, sleep, and make love, or probe one another's minds with the thought machine. For the Hordemen the idleness was a foretaste of heaven. Then what Lori had been expecting came to pass.

One day when the soldier of Helgo who acted as servitor and provided their table came into the room, he was followed by an officer who cried out that Helgo had fallen and the prisoners were free men. Upon the heels of this announcement entered Prince Brail, the red-haired puppet ruler, attended by the bright-haired impish maiden who was his favorite and constant companion.

Mirrla spoke to him softly in the Horde tongue but not too softly that the three Hordemen could not overhear.

"My lord, they are ripe for your plans. They are fed up with the Horde. They understand now what its nature must be."

"Men," said the prince, "our overstuffed, demented rulers have fled before the oncoming Horde. They would have been glad to have slain me before they left, because I have failed to defeat the Horde, but they feared to take the time it would have required.

"I have long wanted to escape from them and set up a government of my own elsewhere, a little more to a decent man's liking than this has been. To this end I have secretly had several great ships built, much faster than anything else in space, and I have lied about them to the rulers, stating that they were defective in design.

"My plans are carefully laid. Those men who are loyal to me are now in waiting in my ships. Everything is ready for swift flight to some distant planet, there to live as men should live, not as slaves to demented, devouring bellies, as we have been and as you Hordemen have been, whether you know it or not.

"I have need of your knowledge of the Horde to help me evade their far-

flung posts; need of your knowledge of space and navigation; need of your knowledge of the Horde's science and methods. Will you join me? You have little to lose. Your life with the Horde has not been entirely to your liking, I have learned. I offer you a fresh life with rich reward."

LORI lost no time in indecision. This offer was the answer to his problems. His assent was fairly drowned in the shouts of his two comrades.

"Aye! We have had enough of war and endless sacrifice. We acclaim a leader who remembers to award his men their just dues, a leader who does not hide from us, but whom we can see and know."

Mirrla was laughing at their enthusiasm.

"See, my prince, how you are trusted immediately. It is because men sense your sincerity at once."

"Your strength and your understanding are accepted," smiled Brail.

A stir sounded in the corridor without. Brail turned—"Prince Kosin, I thought you had fled with Lord Onil?"

The soft, voluminous, silk swathed body of one of the hidden rulers waddled into the room. In his hand he held a dis ray gun. Behind him stood two of the palace guard, weapons leveled.

"So, Prince Brail. There is more to the Horde than these three impressionable idealists. I have long been a spy in the pay of the Horde and I may tell you now that you are not going to escape to make trouble for my so generous employers. Lay down your weapons. You must await our new rulers. Prince Brail, you are my prisoner."

Lori, standing momentarily stunned, noted a wink pass between Brail and the guards and knew that no love was wasted by common men on 'The Fat Ones.' Brail stepped closer to the huge Kosin, saying in a low voice:

"Don't be hasty, my Kosin. Perhaps we both will be relieved at the change."

But Kosin's hand tensed on the trigger, his shrill voice a bit worried—

"One more step, Brail, and I'll puncture that body your girls dote on so full of holes—

AT THESE words, Mirrla, frightened behind control, flung herself at Kosin, clutching the deadly dis ray with both hands. The dull thrum of its discharge sounded from her breast and a smoking hole appeared in her back. But both Lori and Brail had swung into action, heedless of the leveled weapons in the hands of the guards. Lori hit the fat carcass in a diving tackle hip high, almost simultaneously Brail's broad red fist smacked him between the eyes. Blood gushed from his nose as he fell to the floor, rolling over with Lori on top, his fat hands feebly struggling to keep the gun from Lori's wrenching hands. The guards, torn between long knowledge of and regard for Brail, and the sudden new assumption of power by the hated Kosin, stood in dumb-faced non-interference, their true desire for Brail to win the struggle holding them helpless. Then from the floor Lori bellowed, Kosin's weapon now in his hand.

"Don't shoot, this fat beast is a born traitor to any tie. Brail is worth a thousand of him. We will take him to the Horde rulers ourselves and get the credit for his capture."

Brail's hands were buried in the fat folds of Kosin's neck, and the guards stood looking at the gun in Lori's hands and quietly enjoying seeing a Fat One gasp his life out at last. It was a good omen for the future, their faces plainly said. Brail's hands did not release that neck until the last quiver had died from the soft form. Brail knew men. Then

he arose and looked closely at the two guards.

"I do not know you men well, but I surmise that you would like any change that relieved us of the presence of these 'Fat Ones' as you men call the secret rulers. Well, that change has come but I am not able to stay. I have my way of escape also open. If you have been in the pay of the Horde's spy you might stay safely, otherwise you had better come with me. Quick, what will it be? I liked your behaviour here; it was wise of you not to go too far in aiding that monster."

"We will follow you, Brail, we know a few things, too. Nothing will be safe here for a while. You are a good man for those you approve of. You are not unknown." Their faces lost that dull expression a man acquires from standing guard for long hours each day, and acquired a canny, knowing look. "Lead on, we will not get in the way."

BRAIL caught up the body of Mirrla, and raced down the corridor, the five men following. They entered an elevator, descending uncounted floors, deep into the ancient foundations of Bersalt. Here the ancient stones fell away before Brail's wrenching hands, revealing a hidden flight of steps leading down into the dark. Deep within lights glimmered. As they emerged, they saw a row of launching cradles, their ships pointed up the vast tubes of rock that slanted toward the distant surface. These were the ships which Brail had told the rulers were defective. Their tubes glowed dully, and the gray soft steam of disintegrating water eddied about the cavern.[5]

In seconds they were aboard, standing before the great space-range visiscreen, watching the still battling remnants of Helgo's fleet far above them in the night. The long needles of Helgo flashed between the groups of stubby, broad ships that were the standard battle-wagon of the Horde. Their mighty rays blazed in broadsides, but ever another of the few remaining obstacles to the conquest blazed up into a fierce white flare—dropped slowly, then faster and faster—a dull red hulk of death—toward Helgo far beneath. It was a gallant last stand of individual ships against the perfect maneuvering and flexible tactics of the Horde's unifying multi-head control devices and vastly outnumbering ships.

"Dying, damn it—because they trust me," muttered Brail—and bringing the flagship into focus on the tele-transmitter he bellowed into Commander Urdil's weary and startled face.

"Surrender, man, there is no use in more death. There is no way to win.

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[5] The ships of Helgo are driven by a radium activated sun temperature disintegration chamber, fueled by water. Their drive was an improvement over the standard drive powered by the immense expansion of water when disintegrated atomically. This was simply a pressure chamber of hardened beryllium alloys in which water was driven between plates of radium in a supporting matrix. The secret of the drive lay in the closeness of the plates and the pressure conservation of the chamber—for from the action of the radium on the water the pressure built up to temperatures and pressures comparable to those on the sun. The heat between the plates became enormous under pressure and the molecular disintegration of the water turned into atomic disintegration as the temperature reached a certain point. Then the tremendous expansion taking place explosively opened the drive valve and the resulting outrush of the expanding products of atomic disintegration was the rocket drive. But lately an engineer had developed an improvement in this drive and brought it secretly to Brail. Auxiliary pressure chambers retained some of the developed high-pressure gases and upon the closing of the main jet valve after drive release cessation, released their high pressure back into the main chamber of expansion at once. This reduced the time required between atomic explosions of the water, rendering the whole motor about twice as powerful for the size. There were a dozen chambers and jets in a drive mechanism, and the resulting drive impulse was not noticeably pulsational.—AUTHOR.

The 'Fat Ones' have flown, and I'm on my way."

THESE ships lay deep under Bersalt. They had been long abuilding and incorporated in them was every advantageous device Brail could collect from the ends of the Empire. Immensely faster and more powerful than the standard battlewagon—they were yet more compact and smaller over-all.

It was this improvement and the speed advantage which it gave him upon which Brail relied for his escape from the Horde and from his hated overlords. His chance at a new life depended upon this time between the ruler's flight and the Horde's entrance into Bersalt. His plans had been long in the building and Lori realized what a tender heart the puppet ruler had, for by commanding the fleet to surrender he had cut his escape time by hours.

There were five of those glistening beauties of ships, slim and virginal, lying in their cradles, never flown before that day of escape. The launching tunnel slanted steeply upward to the night far above. The ships had quarters for several hundred and Lori calculated that in all there must be about two thousand individuals in the little expedition. He surmised that everyone who had been close to the Prince in Bersalt and who had real regard for him, must be aboard one or another of those five ships.

The five ships blasted off and flashed skyward in the very faces of the Horde, for a moment their hulls glowing cherry red from the rays of the enemy—but they were still too distant.

Brail's voice sounded suddenly in Lori's ear.

"Better get up there on the bridge. If there is anything you can tell them about the Horde ships' speed or their tactics, do so. Take my ring; if they question you, show it. They will listen to you if you show them the ring. I shall be up there as soon as I can, but I have something important to do first."

LORI put the ring on one finger and strode away to the bridge. The commander was standing there when he arrived and told him that they were being pursued although not by the standard battlewagons of the Horde fleet. It was three of those mysterious ships of the Horde that followed always on the heels of the fleet, directing operations and exhorting the men of the fleet, but never revealing to them their persons. What those leaders might be like was a subject of much speculation among the men of the Horde, but now that Lori had seen what the secret rulers of Helgo were like, as revealed by the minds of the slave girls, he had no doubts as to the nature of those who had so recently been his own rulers.

They were undoubtedly the lascivious degenerate descendants of the ancient ruling clique of the Horde's home planet Latno, concealing their deformities and their possession of the pleasure mechanisms behind the facade of idealism which the Hordemen had been bred to accept and work for. That these mystery ships were much speedier than the ordinary heavy armored battleships Lori knew and so advised the commander, who smiled, seeming unalarmed. The three ships were trailing them doggedly and ever in their ears dinned the message on the audiphone: "Surrender or die. Helgo has fallen."

Commander Goldr merely shrugged his heavy shoulders indifferently to these radioed orders, and Lori realized that the distance between the virgin fleet and the pursuers remained static.

A hand was laid lightly on the young pilot's arm and he turned to see that Brail had come up on the bridge and

was looking into the vision-screen at the pursuing ships.

"Blast them, Commander. We have led them far enough from the rest of the fleet. Not so fast, are they? Give them death and be free of their pursuit. Then we'll turn on full speed."

To the young pilot the prince added in an aside: "You will see now what I could have done to the Horde had I so desired. But if I had used my power, I would still be in the clutches of those hated Fat Ones who held Bersalt under their death rays. The people will be better off under the Horde's rulers than under the Fat Ones. My only chance at freedom and the building sometime, perhaps, of a new government, was to lose the battle to the Horde. I took that chance. Now we shall see what the future holds for us in goodly living."

BRAIL gestured to the pilot to watch. Presently Lori saw a shimmering, blue-green finger whip out of one of the ship's guns. It was a ray he had never seen before. It touched the following ships, one by one, gently. For an instant they glowed brightly as if freshly painted with a great green brush. Then they yawed wildly, one way, another, obviously with nobody at the controls.

"What has happened?" demanded Lori with burning curiosity.

"Go with the boarding party if you wish, Lori. You may learn something about your precious Horde rulers that will make you more surely than ever my man. You'll find Badi and Dirli below. Take them along."

Lori's curiosity was at fever heat. Now, thought he, he would discover what his rulers were like. For years he had seen the powerful master-ships trailing the war fleet and wondered what masterful creatures of great intellect and intense training they might contain. Now he would know whether his former idealism as to the Horde's great virtue was well founded or whether his recent furious anger at what they had kept concealed from their own loyal men were the correct criterion of their character. He would know them for what they really were, let him once see their mode of life. Whether or not they indulged in the never-ending pleasure spree he had seen in the slave girls' minds or whether they too lived on the Spartan simplicity of the Horde's code, that would tell him all.

A dozen compact trip-ships took off from the five vessels of Brail's fleet a few minutes later and on one Lori had gone aboard with Dirli and Badi. The trip-ships sped through the void to the enemy's helpless craft that were driving now in dizzily erratic circles. Lori was first to emerge from the air lock, a needle gun in his hand.

Now, the continuous electrical stimulation which had taken place in the ruling classes in the past centuries of their secret indulgence had resulted in curious changes in the germ plasm—generation after generation—the children of the hidden rich had been successively different—so different that the things they found in that ship were not men at all, but curiously distorted caricatures of men, hardly recognizable as such.

So, what B23X, or Lori, stepped into was a ship full of horrible creatures, lying dead in the midst of the choicest loot of a hundred planets.

As a consequence of the continual excitation of the nerve centers from earliest childhood, they had grown out of all proper proportion of the body, yet the cruel faces and thin lips belied all the natural implications of sensuality inherent in such a condition. The bandy thin legs, the pot bellys, scrawny necks and sunken chests were partially a result of their completely sedentary life. Several of these Horde leaders were

women, if such distorted caricatures could be called women. Certain it is they were no advertisement for the hereditarily beneficial results of indulgence in artificial pleasures for centuries. This revolting appearance was reason enough for the secrecy and mystery surrounding them, Lori realized. The locked doors of several rooms opened to reveal the poor creatures of their pleasure—children chosen for their beauty and strength, and trained for years in every perversion—in every intent toward sensuality—until they were the things desired—a creature whose every impulse is toward bodily pleasure. For there is that about electrical stimulation of the pleasure nerves—it overwhelms natural impulses when ignorantly handled, replacing them with a wild, automatic, hypnotic energy to the exclusion of any effort in any other direction. It was this which Brail most deplored about the ignorant abuse of such inventions. In wise hands they would have been an immense enhancement of the beauty and pleasure of life—a force to build a greater appreciation of beauty and effort toward a richer life—a tool toward an ever richer variety in pleasure. But in the degenerate hands of the mad rulers it was a totally corruptive force resulting in a mad obsession.

THESE pleasure stimulants had originally been built as beneficials, to make the whole physical apparatus of the parents that bore the future race stronger, to grow a saner, sweeter, healthier child, but seized long ago by the monopolists and used far beyond the load limit they were designed for, the result had been a disastrous degeneration in the germ plasm of the families using them. All this Brail had long known and Lori deduced as much as he looked around at the gross distortion of the bodies of the masters and the beautiful but over-developed bodies of their pleasure slaves.

One of Brail's officers paused at the threshold of the room and Lori called, "Ought we to heave this carrion out of the air lock?"

"I think not. I believe our prince has a use for them. You'd better turn in, Pilot Lori, and get some sleep. You may yet have to take a trick at the controls; we haven't many good space pilots. We are mostly from the land forces, you see. I'll be on my way. I'm looking for technical papers. If you see anything of that kind, let me have them at once."

The boarding parties were now functioning as prize crews on the three captured vessels and Lori selected an attractive cabin from which he carried out three dead slave girls, and then turned in on silken soft cushions, such a bed as he had never sunken into before. It seemed to him that he had just slipped off into a doze when he was awakened by a laughing voice and opened his eyes drowsily to find the red-haired prince smiling down at him.

"You've slept two hours, my new friend. I have some very interesting things to show you, as well as many questions to ask. If you will give me an hour or two, you may then return to your slumbers, although why any man should sleep with all these beautiful women around, is a puzzle to me," grinned the prince.

"But there—I had almost forgotten that you are still a natural man. Come along!"

"Right with you, Chief," cried Lori, bounding to his feet, and feeling a new and curiously inspiring surge of friendship and loyalty to this man, almost a stranger yet so frank and open with him.

Brail strode ahead into the main salon, a huge lounge full of strange apparatus furnished with numerous

large divans, each with wires leading to the apparatus. There were several bodies still lying where they had fallen when that powerful blue-green ray had whipped them into oblivion.

"Watch closely, Lori, and you will learn much that may be useful later on."

SEVERAL of Brail's physicians and surgeons were working over one of the monstrously misshapen corpses. Wires were attached to bands about his wrists, ankles, head and waist. Above him and shining down upon him were a battery of green rays. All at once a shudder shook the body. One of the medicos nodded to an assistant who threw a switch at the side of the lounge. The doctor then picked up two shiny electrodes and placed them on the breast of the thing, over its heart. The green ray made the flesh translucent and within the chest Lori could see the heart suddenly contract, then expand. The medico lifted the electrodes, the heart stopped. He applied them again and the heart contracted and began to beat. The doctor lay down the wires and began to release those from about the limbs of the thing. A living body, but lately a corpse, was lifted from the table and placed on a nearby couch, while another corpse was placed on the table for treatment.[6]

"Can you do this for Mirrla?" Lori inquired, hardly believing his eyes.

"Yes, my friend. Mirrla still lives and will soon be her old bright self. This is one thing I particularly wanted you to see, that this science, of such immense value to medicine, has existed for a long time. Yet it has been kept from our peoples by this mad clique, this misbegotten spawn of a defective stim[7] current, for purely selfish and foolish reasons. I wanted you to see that the same hypocrisy and cruelty is shared by the government of your Horde with the recent rulers of Helgo.

"Every cell in the body is a battery as well as a storage place for the current it evolves. It is possible to build batteries which are almost precisely similar to these cell batteries of the body. Now, this current which the nerve cells carry about the body are of several kinds, all of them to a certain extent bearers of as well as currents of command, which are also currents of power to the muscles. By slightly varying the makeup of the batteries, as well as by simulating thought commands by means of a thought record, a variation of impulse organ can be built which simulates the functions of the mind over the body.

"Chiefly this organ has been used as an instrument to command the body to fructify and to furnish the powers to feel greatly the nerve stimulus accompanying such bodily functions. This type of apparatus is the pleasure machine which has so debauched and deformed these creatures through generations of misuse. It could be a gate to heaven, but in ignorant, evil hands it has proved the door to hell. Carefully

[6] Some Geo. Crile quotes from book "The Bipolar Theory of Living Processes."

Page 17, par. 3—"The term living applies . . . to state in which an accumulation of electric energy on the membranes (lipoid films surrounding cells) with resultant polarization, together with mechanism for release of that energy—"

Page 260, approx. par. 2—"The action of electrical energy on protoplasm although all the conditions are more complicated than in inorganic substances—is *governed* by the *same laws.*"

Page 44, par. 3—"The electric potential of the cells is produced by oxidation of the lipoid films surrounding the globules."

Page 15—"Electricity keeps the flame of life burning in the cell—and oxidation supplies the electricity."—"The cell is an automatic mechanism—life is the expression of the activity of the automatic mechanism."

In an introductory paragraph—"Any organ of the body, any muscle, can be made to act, to function, to secrete, be stimulated to greater activity by the use of electricity from without the body."

[7] This type of pleasure electric is called stim for short. It is in use in many places.—AUTHOR.

constructed, these batteries would be wholly beneficial and nutrient in nature; even their prolonged use would result in better functioning and strength of the nerves and organs, which would in turn have resulted in stronger, saner, more beautiful children.

"BUT the ruling cliques saw a beautiful opportunity for selfish action long ago when the apparatus was first invented, so slew the originators, seized the apparatus, and made copies of it for such of their friends as were able to pay the fabulous price. The result of their ignorant monopoly was that the batteries were improperly built, incorrect acids were added to strengthen the output, and the variance in the current from that which the body cell creates resulted in this horrible distortion of their bodies and characters. Their children became more cruel and greedy, more lustful and less understanding of true pleasure."

"These horrible creatures are men, or were?" questioned Lori.

"They are animals, different from men in many ways. That thing we brought back to life is in truth the child of an artificial electric current which has subtly rearranged the inner chromosome and determinants which a child inherits from its parents; he is a child of an ignorantly built force, made by an imitator. This result was originally feared by the inventor, who took steps that his work should not come into general use until all the possible variations of the currents had been created and their results on the physical makeup of the people using them studied and understood. This work was broken up and stopped when they were murdered by monopolists who could not understand the intricate and various dangers inherent in such delicate machinery.

"I have secretly come by information from people who had studied this sort of work, and carefully in private hid these current variants and nerve command generators; who have lain hidden about Helgo since the degenerates gained power. Their knowledge I gathered.

"Some of my men have mastered much of the art of creation of which heretofore only the involuntary organs of the body were capable. Thus it was possible for these men to sew up the fatally torn heart of my little friend Mirrla, run one of the wound currents which contain ions of healing nutrient such as only the blood ordinarily bears, to keep flowing through her body waves of energy-sustaining components, and flows of the bits of magnetic force which hold all matter together, to start her torn heart beating again, to heal her wholly and anew and return her to my arms in perfect health.

"You see, Lori, how it has paid me to keep trying even when all trying seemed useless. Such men as I have here exist nowhere else in space, perhaps, yet their work is but the logical development from the facts of life, apparent in the mere existence of such machinery as will artificially make a living body function against its own will."

"I BEGIN now to see what you mean when you say you wish to build a new world, a new kind of civilization, Prince."

Brail smiled.

"Now I shall show you what lies in their crooked minds. You are going to be astounded, amazed. Having always possessed thought reading mechanisms, they have never found it necessary to think for themselves. Look here," and he placed the metal cap with which Lori had already become familiar upon the head of the revived monster.

The thing's thought took form in the

luminous cloud. It was a reaching, a questing, as of some primitive life like a leech reaching for the gill of a fish to draw blood. That was all there was in the creature's mind, a strange groping as of a man suddenly gone blind.

"Watch now," Brail said. "This girl here was his particular and valued perversion, his slave for long years. See now!"

Another cap was placed on the beautiful head of a slave girl who lay bound to a nearby couch. Instantly the thought cloud became the apparently normal mirror of the thoughts of a sane person, yet the character was that of the monster, for Brail questioned, "What would you do with us if you were free to wreak your will upon us?"

Within the cloud the picture of themselves, Brail the foremost, began to form. The picture visioned them as being bound and hung from ropes attached to hooks in their shoulder muscles. It showed their bodies torn by red-hot pincers; it showed pain impulse rays played on them; it showed the distorted faces that emitted shieks of agony which were keen pleasure to the thinker. All this took place in the thought-cloud as a result of the question.

"Now watch the thought screen as I remove the cap from this monster's head. Only the slave girl's thoughts may be visioned now. What would *you* do," the prince asked the girl, "if you were free to do with us what you would?"

THE response was totally different now. The girl was a lonesome lost soul, whose expression seemed to ask for friendship and love and upon its refusal, as she seemed to think it would be refused, she bade them a sorrowful farewell and in her thoughts the Helgonian ships receded rapidly into space, leaving her alone with the dreaded will of the master from which she could not free herself.

"You will observe, Lori, that the will power of these creatures resides in the batteries they use and resistance to a master will is overcome merely by turning a knob on the rheostat. Thus they rule the Horde by using the minds of others for their thinking, but spoil all this thought by adding their own detrimental will to the thought pattern, overruling its well-meaning logic with their own unconsidered ill will. They are in truth a form of parasite, not actually men, but things as low as insects which can only survive by using the bodies of others. This inherited art of the electrical current which is an artificial copy of the body-electric is their only tool, their only resource; in truth, the only functioning part of their bodies is the machine. Do you see what a horror these recent rulers actually are? How they take pleasure? What their lives?"

"It is too appalling for words," Lori exclaimed sickly.

To the monster Brail now addressed himself.

"We have captured you, O mighty one, and must soon slay you. It is our custom, however, to allow a condemned man some favor before he dies. What may be your request?"

The cap was replaced on the monster's head and his wish was revealed in the thought cloud. He desired to take all the stimulation his body would bear before death, in the company of his favorite slave girl. The caps were left on the heads of the couple and their anticipation of the coming indulgence unto death was revealed in their pictured memories of similar orgies in which both had participated innumerable times, and in fact this stimulating indulgence of the machine had been their whole life heretofore.

The practiced fingers of the monster made the necessary adjustments to the instruments and wires from the intricate, organ-like apparatus, and the willless slave girl was excited to a wild, convulsive state by the full power of the mechanism. The monster, whose body was also under the dominance of the stimulating current, was about to embrace her in a last bout to the death when the red-haired prince threw the master switch and stopped the current flow before the girl could be harmed by its power.

"I wanted to show you," said Brail to Lori, "that although this creature has used the girl as his instrument for mechanical pleasure for years, using her for every thought he thinks for the better part of her life, yet there is no real love in him for her, for he wished to kill her as well as himself. These artificial creatures are incapable of affection."

HE REMOVED the cap from the monster's head, the creature glaring malevolently at this frustration of his desired indulgence.

"Did you wish to die?" he said to the girl.

She shook her head in negation.

"Did your master know you wished to live?"

She answered, "Yes" and a faint reflection of her nearly atrophied self-will showed for an instant in the thought cloud, an impulse that said plainly, "Free me from this thing!"

"You are free, since that is your desire, poor creature whose will has been destroyed. Before long you will be more yourself, and mistress of your own actions. I need your knowledge, oh wasted woman, and you need no longer be a waste, but a will to live and make life what it should be."

The monster was struggling then in the hands of Brail's men, as the prince ordered that he be locked up in a rear cabin.

"Once away from their thought machines, their atrophied bodies impulses cannot give them energy for much thought. This is not a particularly dangerous situation unless they get hold of the apparatus. They know certain things, out of their practice and knowledge of the body electric's use, that may be helpful to my medicos in teaching them what *not* to do," Brail explained, laughing.

"Shall I be on duty here?" Lori asked distastefully, surveying the corpses.

"Better return with me to our flagship. Mirrla has asked for you. She is interested in you, not too much, I hope," the prince said archly. "I love the imp. She can wrap her fingers about a man's heart as can no other woman I have ever known. I warn you, beware of my jealously," Brail laughed.

MIRRLA was half-sitting on a divan, supported by many silken cushions. Her face was pale yet and her eyes shadowed, but her mischievous laugh rang out as Brail and Lori entered the room. She pushed aside the tray from which she had been nibbling at tidbits.

"Dear lord, so you have brought me that big innocent! Aren't you jealous of my interest in him?"

She extended one hand to Brail, who took the small warmness in his own hard palm embarrassedly. He could not get used to women, he decided, his face growing red, as he stammered:

"Considering that a short time ago you were obviously not among the living, your recovery has been swift."

"Brail can do anything," she replied serenely confident. "You have yet to learn how good and how wise my prince is. You are his man now, are you not?"

"After having seen the rulers of the

Horde, how could it be otherwise?" countered the young pilot gravely. "I am with Prince Brail in his desire to build a better world. Perhaps some day we may find a way to free the people of the Horde from their peculiar lice."

Brail sat on the edge of the divan gingerly.

"Are you feeling well enough to talk with us a while, Mirrla? You see, Lori, I am like the Horde masters; I can't think without this imp near me."

Mirrla laid her free hand in the prince's red-furred fist and drew him down beside her with a swift kiss.

"The doctors said I was not to worry, as long as I remained in bed quietly for a week. What is your particular problem, my prince?"

"As you know, I had planned for this escape a certain refuge in the planets of a far-distant sun whose rays are the least poisonous of any suns free of what we call civilization which are within a single voyage distance. But Lori has told me somewhat of certain dreams, or what he has thought of as dreams, which I examined closely and know to be perception of a being in the dark place in space called the coal-sack."

"Dreams are all they seem to me," Lori explained.

"You are not the first man I have examined who has had those identical unconscious perceptions of mighty life in that dark part of space. Always that life seems to be calling to intelligent life elsewhere to approach it and learn. Now you and I understand what this means, from a knowledge of the mind; we know this life must exist there in space and that it is benevolent is apparent from the very nature of these perceptions.

"Does it not seem to you wiser for us to go to that place in space where there is a chance of obtaining powerful assistance for our altruistic plans, than to try to settle on planets so very near the influence of the swiftly increasing Horde? Our work would only be overturned in time by the Horde, I fear, but if we are lucky, somewhere in the coal-sack are beings which the Horde cannot overwhelm by numbers.

"It is this choice that troubles me. Shall we follow our original plans to settle on the planet of Bolra under the sun of Shurr, or shall we go in search of Lori's dark God or Goddess?"

"I remember an old maxim, my prince, that bids him who is in doubt as to two courses to follow both. Let us do both. Let us go to those new planets and settle our people. Then prepare your flag-ship with everything that will make it last through a long voyage, and go in search of that dark goddess of Lori's. Thus, you will not have put all the eggs into one basket," she smiled.

"You see, Lori, one cannot think without her. The wisdom that lies in that apparently merely pretty head is beyond me. We will do both, Mirrla." He rose from the divan. "Rest now, creature made for naught but silly love," he mocked tenderly. He bent to kiss her before he left the room, beckoning the pilot to follow.

THE prince's dark face was smiling as he addressed his next works to the young pilot, mischief underlying them obviously.

"Now I must warn that something very painful is about to take place in which you will play a large part. I shall not tell you what it is, save that it is probably due to your attractive moustache," he grinned. "At any rate, you are the first to undergo this new ordeal. I do not know what your decision is going to be, but a decision there has to be."

"Give me a hint, at least," begged

Lori uncertainly.

"For years the masters of Bersalt have been collecting girls from all the lands and all the planets of the empire. Many of these I myself retrieved from death at their hands and most were left behind them when they fled Bersalt. The Horde masters also carried a harem with them on the captured ships and most of such girls have been revived.

"The preponderance of women in our expedition is not entirely due to my softheartedness where women are concerned; many of them are very capable and experienced with apparatus of which the ordinary man knows little. Most of the women, though extremely versed in the pleasures of love, have had none but their degenerate masters to practice their arts upon, so now the crews of your two Horde ships must choose mates from among them. As I have hinted, very likely due to that ridiculous moustache of yours, the women insisted that you have first choice."

"Gods!" ejaculated Lori, in obvious dismay.

"It will be quite an ordeal, I assure you," laughed Brail. "And now I must abandon you to it."

As he spoke he opened a door to the main salon of the ship, a spacious chamber, and pushed the pilot gently inside, then closed and locked the door.

THE room was crowded with women. They were the pick of two empires, the Horde's vast holdings, and the great empire of Helgo. They knew nothing of normal men nor of normal life but had been the creatures, the slaves of the demented rulers. To these women the young pilot was the fulfillment of a dream all lived in their secret hearts; a real man for a mate. The focus of all those longing eyes, Lori stood just inside the door, staring.

For years he had hardly seen a woman and woman hunger was a mad flame in his body, a terrible compulsion in his brain. These girls, most of whom were barely out of their teens, had been trained from early childhood in the art of woman's wiles accentuated by machinery, had been the harem beauties of the deformed monsters who were their masters. Clothes they were unaccustomed to, save filmy draperies; their only other adornments were jewels. They had seen no reason to alter their customary attire by assuming garments at this moment when their attractions might be so important to their future happiness.

So Lori stood staring almost stupidly at that throng of women, mostly clad only in draped veils, and in all their eyes was one question: How shall I make him choose me?

Two grinning warders approached the pilot and beckoned him to one end of the room where a great throne stood on a dais. Before him the thought cloud was activated and one by one the women donned the metal cap to show him their innermost thoughts, their very souls, so that he might choose wisely. Simultaneously they demonstrated their art of the nerve impulse generator control, so that through his body coursed all the varied pleasures which their lifelong practiced fingers could bring from the keys. Their thoughts and promises of future effort to please him showed constantly in the cloud as each demonstrated her art.

Some girls began with a dance, leading up to completely pictured fulfillment of love in the thought cloud. Some made dreams for him to show what dreams he would have if he were theirs. All the intricate art of the pleasure making to which they had been trained all their lives unrolled before

him a vista of future love so utterly devastating to his love-starved manhood as to cause him to lose consciousness at times.

After each woman had fully exhausted her intricate repertoire, a girl who seemed to officiate as a chairman in the ceremonies would place on Lori's head a cap with a vita-meter attached, which took a reading of his desire. Lori observed that this reading was increasingly higher after each performance and wondered if it could be entirely fair, but soon it began to deviate up and down quite revealingly. This reading was noted beside each girl's name by the girl in charge.

HOURS later Lori staggered out of the great chamber, a man who realized at last what love and life could mean. To a man who had been unable to decide definitely upon any one woman, the readings indicated some dozen devastating darlings as his most attractive and probable final choice. The game would be continued on the morrow, he had been informed by one of the grinning wardens. The pilot had merely nodded despairingly, unable to speak.

In his wildest dreams he had never had such good fortune and that something would happen to destroy the promising future before he could live it he felt sure. This fear shouted at him as he groped his exhausted way to bed. This next day would be, he vowed, the last test, for he felt that the continued ordeal—if he did not decide on one girl—would completely wreck his nervous system. His dreams were fevered, processions of jewelled beauties, soft perfumed hair, lips irresistibly laughing, of long rounded legs, of beckoning, soft, rosy shadowed arms, of flashing eyes, a-glitter with desire.

Those eyes all said, "Take me! Take me!"

"Poor fellow," the girls were saying as they looked over the meter readings and the thought record they had taken unobserved, "he loves us all. He loves every one of us. How can he ever decide?"

"Let us be fair with him," counselled the chairman. "We have plenty of time, for it will be months before we arrive anywhere. Let us figure just which of us affects him most. Let us coordinate the meter readings with the record pictures. It will take many hours but it can be done. Then the woman who has most of that quality which moves him most, will get him."

THE following day the young pilot was ushered in again to face the strange and exciting ordeal. He found several more women than the dozen whom the meter readings had indicated as his choice, lined up for the finals. About the sides of the salon there were also lined up about a hundred of his Horde shipmates, undergoing the same tests at similar apparatus which the girls had brought in and set up.

As Lori seated himself, Brail strolled in, chuckling as he saw the expressions on the faces of the Hordemen. Several of these men cheered him as he entered and all throats took up the greeting. When there was silence again, a brawny captain of a warship stepped forward and made a speech.

"When we were first captured, we could not understand your kind of treatment of us. When you included us in your flight, we still could not explain your motives satisfactorily. But now that we have seen what our former masters have denied us while enjoying it to the full themselves, we want you to know that we feel no loyalty to the Horde any longer. I have talked with many of our men and

most of them feel the same way. We are glad to have a chance to be your men. We shall at last have a worthy chief."

The prince replied that those were precisely the reactions he had anticipated.

"We have the opportunity to build a new kind of life," he told them. "Remember always what evil selfishness has made of life on the planets we know. A moiling misery topped by a monstrous group of idiots pandering to the lusts of a few at the expense of wretchedness for the rest. Let us never let that happen with us, while life gives us strength.

"Meantime, when you men have made your selections of a mate, you will learn something about our new marriage ceremony. It is strangely and infinitely more binding than the old, and the doctors tell us that it is not only psychologically very healthful but increases the pleasure one finds in a mate by a large multiple. We have a new method of insuring love which is very effective. You shall learn about it soon."

"I don't doubt that," muttered Lori to himself, staring about at the throng of lovely forms revealingly displayed.

Two of the girls who had pleased him most approached and seated themselves near his feet.

"It is time for the final tests. You must decide, lord, today."

Then began again the thought probing, the mental pictures from both their minds and his own appeared consecutively in the cloud, the meter readings were too nearly alike to be of much help in a decision. The fifteen remaining girls, some new entries, now danced, each the folk dance of her native country. Short and dark-haired, long-limbed and blonde, full-breasted Amazons and childlike women from the small planet Arfran, they were alike in their mastery of some particular type of dance, for all had been trained as children to dance, since dancers bring a higher price in the markets and these women had all been groomed for the slave market at least once in their lives.

THE dance eliminated half a dozen more, as Lori did not like their short legs. The remaining nine now submitted to meter tests of their mental desire for the pilot as well as to a meter test of the voltage of their minds, which was a fair index of intelligence, the higher the voltage in the mind, the more intelligent, is an invariable fact. The three highest in these two tests were the same women.

One was a beautiful red-head from Sama, a heavy planet whose people are particularly well-formed though a bit muscular for true beauty. This girl's strength was very great. Her skin was of a whiteness unbelievable, her eyes a deep sea-green and Lori was the first real man she had ever laid eyes on in ten years of hateful servitude

The second girl was she who had given Lori the goblet of wine when he first stood before Brail. Still weak from her long torture, she was trying desperately to win the pilot and his reading on her dark, sultry beauty was highest of all, but her own weakness kept her readings down below that of the others, else she would surely have been chosen.

The third girl was a very tall woman from Palas, of a greenish skin and white-blonde hair. Her beauty was startling. Her great brown eyes held a flame of desire no man could resist. Her pointed ears and floating hair; her full, high breasts, and wide hips, her long, rounded limbs and partly webbed hands with fingers twice the

length of ordinary human hands were wizard-like on the keyboard of the nerve impulse organ. She stood before him like a weirdly beautiful statue in green and white, wearing the great pearls which were customary among her people in Palas.

Lori could not take his eyes off her as she took her dramatic pose. She was the woman whom he was sure had invaded his dreams for long and whom he had always loved. Nor did she move her eyes from his but kept her will to win him visible on her face, for she was wise in the ways of love and knew a man likes to be valued highly.

Yet when he glanced at the sultry beauty with her parted lips and white exhausted pallor, his heart smote him for disloyalty, for she had been kind to him and he felt sure he must love her. Then the knee-long waves of glorious red hair would sway before his dazzled eyes and his gaze would wander toward that strong, vividly white body framed in the beautiful hair; the big breasted strong-legged vitality would seize upon his imagination, the burning emeralds of her eyes would look into his, his knees would knock together and his breath would stop in his throat. He told himself he could not make any choice between these three beauties; no man should be asked such a thing. So said the meter, as he glanced at the notes in the girl's hand and then looked up despairingly into her laughing eyes.

She leaned over to whisper in his ear.

"I would choose the green. I know her worth. But if you still cannot make a choice, ask Mirrla. That is what the prince does."

LORI sat in indecision and then the green woman spoke.

"I am one of those who lay in the ships of the master of the Horde. I have watched you through the eyes of the masters and through my own eyes on their vision-plates for many years. I have maneuvered the battleships through the minds of the coordinators, unknown to them. I have truly been in your dreams for many years, for I have watched over you and loved you since first you entered the services of the Horde. Do not deny me, Lori, for I have loved you long."

The red-haired beauty turned in a blaze of fury upon the tall green woman; green ice and red fire.

"You lie, you witch!" blazed the red-haired Titan, her strong legs spread, her hands clenched into fists.

"It can be proved through the thought cloud," answered the green one, her eyes a brown study in self control. "I have saved his life more than once and should have some claim upon it."

Lori was standing now, the fierce vitality in those two women, so startlingly different, so intensely alive, more than enough to bring any man to his feet.

The Horde captain who had addressed a speech to Prince Brail, spoke up.

"What the green one says may be true enough, Lori. Those rulers are in truth stupid and these women's brains, even under their stupid wills, have been our salvation more than once. Do not refuse her love, if she so desires you in very truth. Better men than you are waiting their turn and these other girls will not go unloved."

The green girl spoke.

"I know something of your dreams of the dark Goddess and I know, too, that there is more to those dreams than you realize. I have much to teach you and have desired you over-long. Ask

that girl yonder; she was on the master ship with me and I have often confided in her."

Lori turned to the other girl the Green One had indicated.

"She speaks the truth, lord. Each of us slaves who was on duty at the vision-screens on the master ships had our loved one in the fleet. We could read their minds, and knowing that the whole set-up was so hopeless for them as well as for us, it was our only amusement to make life a little more beautiful for one of you. So we would set a watch upon the bellies at their pleasures and then amuse ourselves by giving our chosen one delightful dreams.

"You were her chosen one and for long years she has devoted every minute that the bellies weren't watching us, to your entertainment and development. It was her beneficial rays that made you so strong and beautiful; her thought which made you intelligent; her work which made you the man you are today. You cannot refuse her. She has in truth created you from the ignorant stripling who entered the Horde's services long ago. You owe the very strength in your arms to her, as well as the desire which lives in your loins. You would be as empty as poor Glak except for her care. You are in very truth her man.

"Go to her and thank her on your knees, if you wish to do everything as a real man would."

LORI could no longer deny that the young girl was voicing his own sentiments. He went down from the dais and walked toward the green beauty.

The wise, wide brown eyes drew him, the floating cloud of her fine hair spun gold about her shoulders. The tall pillar of other worldly beauty that was her body, so long the abused property of the mindless masters, had yet found a way to be his guardian angel. The woman who had flitted through his dreams, whom he had sought gratefully so many years, was she. The ice-maiden herself, the snow-queen of his dreams.

He dropped on one knee before her and took her extended hand, as he begged:

"Forgive me for not recognizing you. How could I have known you would be here? I know you now. You are Norla."

"You are forgiven, lord. I am sorry I spoke as I did but I could not help myself. These others are so beautiful that fear struck at me and I could not bear losing you after so nearly winning you.

"There is much I can teach you which they cannot. It is obvious from the test readings that you are as much attracted by my beauty as by theirs. Other things being equal, I could not have you choose someone who does not love you as do I."

THE lovely green witch Norla then suggested to Lori that he ask Prince Brail's permission to return to the ship on which she had spent so many years of her life. It carried a wealth of apparatus with which she was familiar from long use as she had operated it all under the superimposed will of the masters. Also her quarters, the only home she had ever had, were on that ship. She had been one of the most-used "tools," for she came of a long line of scientists on her own planet and had the advantage of a better education than most of the women could boast.

The masters had naturally fallen into the habit of using her brain for every important operation on the ship

and she had often been commissioned to superintend new installations of machinery or major repairs. She was perhaps the best-trained brain in the use of the secret mechanisms in existence. Although it was possible that Prince Brail's scientists and medicos understood the theory behind those mechanisms better than she, they had too few of them to have had anything like her experience in their use. It was this last she meant when she told the young pilot there was much she wanted to teach him.

As they boarded the conquered Horde ship Norla called Lori's attention to the first device she intended to demonstrate.

"You know, of course, that a coil of wire about a steel bar will cause the bar to become permanently magnetized when a current is run through the wire. The current in the human body is of a similar nature and proximity of the male and female alone will in time cause an attraction to rise between the two which is, in a way of speaking, a magnetic polarization of the cells of the body.

"There are other factors entering into the phenomenon of love, but the explanation would take up too much time at this point. Lie on this couch and I will place this silver coil about it. Through the coil," she explained, "will run the current from my body, augmented many thousands of times by the batteries and these tuning coils.

"The natural magnetism of love is permanently increased in every cell in the body, and since the current is attuned, is indeed manufactured by the cells of my body controlling those great synthetic body-cell current batteries, you will find yourself in love with me, and only me. Do you consent to this treatment," asked Norla, her burning eyes on his.

Lori nodded, his mind lost in the memory of the dreams which this tall green woman had moved through so beautifully, always showing him some new wonder, always leaving him more intensely curious about the nature of life and love.

"Now you are mine entirely!" she exclaimed triumphantly, her wide mouth curving in a lovely smile, her teeth flashing white, her eyes now blazing yellow fires in her glowing face, and her hand swiftly closed a great switch above her head.

SHE had placed about her waist and breast two silver bands, which were connected by wires to the great instrument. These bands and the wide silver coil about Lori's body began to glow with rosy pale flames of energy. Through the pilot's body coursed a current of magnetism so strong that his every fiber shuddered steadily.

His eyes were on the green witch and his mind accepted that through his body was coursing the essence, the identical energy, that was her soul, her character. As he watched, every line of her body took on a new, gigantic meaning to him.

She said abruptly, "Tell me now what you see."

He said strangely, "I see a woman . . .

"I see a woman—" Lori's voice went on, almost chanting, "the curve of her high breast is now a saga of beauty. The light of her eyes, reflecting the rose glow of the coil in its yellow depths, has become a vast tongue of fire toward which my spirit aims like an arrow, my body a bow to send it, bent and ready. The long pillar of her waist, has become a stalk upon which grow three great hungry flowers, her breasts and her face, framed in the soft flame of her hair. Her long, sweetly

rounded legs are like two great pale pythons, two slaves of the witch queen above, and those slaves must always move toward me to save me from unbearable misery.

"A spell is born in me," he mused strangely, "from which I know I shall never be free. You are my will, yet only a god could want it otherwise. Life is worthless, at the cost of losing this reward."

Norla began to release him from the silver coils.

"Now you understand something of animal magnetism. This treatment should last for some months, and then I shall give you another."

She slit his tunic with her dagger, placed the silver bar from her breast about his own bared chest, as well as the other band about his hips.

"Now, when you throw the switch, my will becomes your property, as yours has become mine," she informed him.

She threw herself lightly upon the couch and replaced the bright coil about her long body.

"This marriage of ours will be one of actual binding magnetic force, not dull words from a priest. Throw the switch now. All is ready."

AS THIS strange and lovely creature bade, Lori did. About the coil now played not the rosy glow of Norla's vital force but a green blaze of virile nature.

"And what do you see, my Norla?" asked Lori, recalling the words wrung from him by the terrific attraction which had now made its permanent home in his body.

"I see a strong man whom I have loved for long and who is now truly mine. His voice, which has always aroused me, now rings in my ears like the magic of Pan himself. His chest, which I have just bared for the first time, is a great shield of strength, mossed with the black curls of the male and bearing the two red flowers of desire.

"His mouth, which has yet to taste my lips, is parted and waiting and so will it always be parted in anticipation of my coming.

"His waist is a pillar of dark strength to which is shackled my life. His arms are great serpents waiting to crush the evil out of my body and fill it with his pleasure.

"His legs are muscled movement which I shall watch all my life bringing him to me or bearing him away.

"His strong, patient, sorrowful life has ever been my charge and now has become my reward for kindnesses unknown to him. He shall be sorrowful no longer for I bear his laughter between my own teeth. Presently I shall place the laughter in his mouth and there it will remain."

Norla's green body shuddered constantly with the flux of a mighty magnetic field, her hips writhed with uncontrollable desire, her eyes rolled toward his face and away for she could hardly bear to look at him.

Lori hastily released the switch, realizing her will to take more of the charge than was perhaps good for her. As he pushed back the great coil from the couch, Norla half rose from where she lay, but her head fell back on her shoulders, her long tapered neck arched sharply back to her round upward-thrust chin, her red lips opened over her gleaming teeth and her eyes burned hypnotically into his. All desire flamed in those eyes for him alone and Lori bent and his arms slipped about her, his mouth at last crushed hers, the crown of an ecstasy that became unbearable. The day went dark and he lost consciousness.

AS HE came slowly back he heard Norla's voice softly in his ears.

"You did not know that a kiss could make a strong man lose himself so completely, like a weak and silly girl, did you, my Lori? But so it can be and there is an infinity of deeper, vaster pleasure for us in store. Let us keep out of the clutches of the mindless masters who have crushed this life science in their inept secrecy. There is much let to learn, my Lori. You have but tasted the first minute nibble of life as it can be under the science, as Prince Brail and some others like myself know it.

"Are you satisfied now that you have chosen Norla?"

"Witch, the red-haired girl was right. You are more than mere humanity," Lori cried ardently. "I am under your spell, nor would I wish it otherwise."

He drew her long, sweetly curved body up into his arms.

"Now show me your cabin, where you have lived so many years."

"Down that corridor, my Lori."

She smiled subtly as her lover bore her toward it, unable to take his eyes from her that laughed from her glowing face up into his own.

THE little fleet sped on. The five speedier Helgonian craft were in the van, the slower Hordeships forming a read guard; in case of an attack they would fight to the death while the five, bearing the original members of the expedition, fled that they might be spared to carry out their ideals.

Norla was constantly employed teaching Brail's technicos the uses and construction of the intricate and variegated machines, many of which were very old, used constantly by the Horde masters, who were too stupid ever to replace worn parts.

Lori's over two hundred shipmates had chosen mates from among that throng of beautiful women and had begun to learn what life could be under intelligent and kindly leaders such as Prince Brail and his beautiful favorite Mirrla, who was considered the prince's consort.

Sitting before the great master visiscreen where Norla had sat so often for so many years, on watch over the fleet for the masters while they plunged in their insane debauches, Lori inquired curiously:

"Why did not the things love you, if you used that apparatus?"

She explained that they were so degenerate that they were incapable of love and the augmentation of their body electric only resulted in a greater, more intense loathing. They were in fact incapable of pleasure, but they did not realize this.

"The machines, when too old, give off a subtle detrimental which acts like an evil will and these creatures stupidly allowed themselves to become full of this soul destroying, artificial evil will, and their children were the products of this distorting force. They had inherited a mighty empire and the most wonderful science known to men, but their ignorance of the effects of over-use of this type of mechanism was their undoing.

"Let us forget them. We know what made them the horrible things they became, and we know how to avoid that evil by constant testing and upkeep of the machinery and batteries.

"We can build life anew by the use of the very science, the abuse of which made the rulers obscene failures.

"Before I overlook it, I want to show you a beneficial ray which is also a nutrient, feeding the nerves and making you better able to feel the softness of my body. It is really also a pleas-

ure impulse in its own right."

LORI hesitated. So much science, all of which he could not digest mentally so speedily was it given to him.

"How do you know it is safe to be used?"

Norla laughed.

"There are multitude of tests for that. One can sense evil in the vibrants, just as one can sense evil in a man. By augmenting its nature until visible to the mind, you understand. Then there is the test of the microbes." She held up a test tube as they stood before the apparatus. "This is full of ordinary amoeba, raised on beef broth. Under a microscope they are just tiny, not very active, ugly little things. I place these tubes in culture and in the current I run through them for ten minutes which is their life span, most of the amoeba are now another generation.

"These I place under the microscope. You will observe that they are very active, much larger, and about them is a pleasing appearance; they have acquired beauty of a kind from the effects of the current. Does that not reveal sufficiently the beneficial effects of the current?

"Now I shall show you that by placing another tube of the same culture under this old, dust covered machine, which is identical with the one we just tested except that it is very badly worn, and then putting the culture under the microscope, the amoeba are almost inactive, and are misshapen, aborted creature, with no beauty whatever. They are barely alive; no more."

"What has made the old machine go bad?" asked the pilot.

"Particles of disintegrant nature gather in the machine. After long use this turns the metal into a generator of evil force. It can also be tested by letting a little into your brain while you make pictures on the thought cloud. If the apparatus is still in good shape, the pictures should be beautiful and varied but if evil disintegrant forces are stronger, they become stupid, ugly, unvarying thoughts of ill intent.

"There are any number of such tests. That of the spectroscope for disintegrative elements reveals the condition invariably. Yet, due to the passive ignorance and selfishness of their fathers, these creatures were born to curse a hundred planets with evil rule."

Lori's arms went about her.

"What must be your natural intelligence, Norla, that kept you from falling into the state which the poor demented addicts I have seen had fallen into. How you must have resisted that terrible and constant invitation to debauchery which lay always here in your work with these mechanisms and under the evil will of those half-men. How your own will to love truly kept you from sinking into that pit which was really the line of least resistance.

"I love you for that strength of will and purpose as well as for your cool green beauty that covers the fiery heart of you."

"You should also know, Lori, that many a fairer creature that I sacrificed herself to keep my mind safe to care for the welfare of you and your men in the fleet. Often they invited the stimulation to keep it from me. It is a long life that I live, made up of many lives that gave themselves to keep me whole and because they loved such men as you in the fleet, but were unable to care for their loved ones as was I.

"I have seen dozens of my compan-

ions go into insanity and worse than death, just to keep me for a little while longer in life and sanity. You cannot understand the long and terrible battle for self-will and sanity I have waged, with the help of many devoted girls now either dead or gone mad.

"Thus it is that you hold many women when you hold me in your arms. Do not waste what they died to preserve."

Lori's lips suddenly touched her forehead in a tender caress.

"How I love you, Norla!" he whispered. "You are wonderful."

SHE gestured to the room in which they were standing, outfitted with many different types of apparatus.

"This room was my work-room," she explained. "In it all the determinants of energy are charged to a force set-up extremely favorable to life. I never told the degenerate rulers what I was working at and they were too stupid to ask its use or they would have appropriated my work. But many of the other women understood and spent much time in here.

"You may not have realized that Life and Growth are not the same. Growth is not always life, but life must have growth. Most matter is but a centralization of the products of disintegrant and much of the growth in life partakes of this process. The food for this growth in life does not all come from what we eat, but also out of space, the long-cold ash of the fires from all the suns. These are energy flames rich in their substances. There are several of them, all vitally necessary to life, just as proteins and carbohydrates et cetera are necessary in food.

"I have formed several great magnetic field lenses about the ship. They extend for acres about us, focusing this invisible ash, sub-atomic matter, into a small beam against these reflectors now set in the walls that look like decorative shields. Between these mirrors of force the rich flows from above are trapped and roll back and forth until their velocity is reduced to such an extent that the body absorbs these nutrient bits of stuff from which all matter is in fact composed.

"Here above my couch is the focus of all the mirrors. The varyingly attuned focusing fields throw here a rich mixture of invisible substances which causes life to become a thing beyond understanding to you, as yet. Watch while I step in the focus and you may understand why I am beautful, although you know I must be old in years. In years I am old, yes, but these nutrient rays have made me younger and far stronger than any human being now alive," Norla said with pride.

As she spoke, she stepped up onto the center of the divan. At once the life in her glowed into new, tremendous flame. Her eyes shot forth beams of irresistible attraction. The muscles under the smooth green flesh crawled like prisoned snakes. Her mouth opened in a low laugh that held all the invitation of paradise.

Unable to resist the terrific life-spring of woman being that had suddenly manifested itself in her, he sprang up to the divan to her side. The terrific ecstacy of that focus of hidden life-giving force was the biggest thing that had ever happened to him, he knew instinctively. Every faculty, every sense, seemed heightened in power of a long multiple of its ordinary strength. There smiled into his newly all-seeing eyes a face, the face of his dreams, the face of all women who ever loved molded into one great strength of being. He knew Norla for

his mate, for whom desire welling in him seemed beyond the power of flesh to contain, yet he lived, for new strength rose steadily in him, like life rising from a deep mother-lode of life.

He crushed her body to his and knew that such a mating could come to Gods only. He felt himself a god as compared to ordinary men; by the wisdom of the green witch he had been made super-human. Life was the secret of the Gods; the way to success, to grasp life was to feed life more abundantly, and the pleasure of this was the reward for learning such a simple truth.

THE green witch woman and her lover did not emerge from her chamber of tremendous secrets until over a week had passed. When he came out at last, Lori could not believe so many days had gone.

He could not fathom at first the awe with which his shipmates greeted him for his face, like Norla's, shone with godlight beauty and strength. In both their glances lived a fiercely vital something that had not been there before. Previous to this experience with her lover, Norla had never dared to use the force-focus for so long a time, she had feared the cruel rulers would have realized that she had something which they must take from her for their own use.

Encountering Badi for the first time since his new experience, Lori was taken aback when his onetime comrade saluted him with a respectful bow, and an amazed expression that was half awe.

Badi replied, when questioned: "Lord, you have become something more than mere man. This is unmistakable. I pay due respect to whatever it is that has taken possession of you and made you more than human."

A RADIO report from the young pilot to Prince Brail resulted in a hasty visit from the red-haired ruler, who asked that he be shown Norla's chamber immediately.

The green witch explained that the walls were of special reflective material from which the energy ash could not escape, once in, so that the beneficial pressure kept building, once the power was on.

Brail cried out, "What couldn't we do with a really efficient installation of this kind! It would be revolutionary. Men and life as we know them would become increasingly more godlike. Our new homes must each contain such a chamber. It will be your work, Norla, to oversee their proper building, on pain of punishment by this former Hordeman of yours," he added mischievously, "If you two realized what this energy focii has done for you both within such a short time, you would understand why I desire a great many such chambers with these wonderful devices."

Norla's eyes sparkled with anticipation.

"What a race of super beings we can make!" she agreed.

The prince stepped into the center of the broad couch.

"I do not intend to be out of such a chamber very often, in the future. Turn it on, Norla. Don't hold out on me any longer. It makes me impatient that I must wait, when I look at your youthful, bright faces. Shame on you, my girl! And me dog-tired," the prince complained, laughingly.

She said in a less assured voice, "It would do Mirrla worlds of good to take the treatment with you, prince."

"Good girl. Lori, get my little bundle of delight, will you? She isn't strong yet and this may be just the medicine she needs. Norla, will you

call in my techs so that the principles on which this is constructed may be demonstrated to them? The sooner they understand that beneficial force can be concentrated in great strength, the better for us all.

"Our rays are so puny, yet they never have realized, my techs, that those rays could be powerful by strengthening, focusing, and better construction. When you get them here, give them a good going-over, Norla. They need the swelled head taken down a little, every once in a while."

In the course of half an hour Mirrla was borne in on an improvised stretcher by four of the former slave girls. She had been forbidden by the medicos to exercise, so did not try to walk, although she felt that she could if she chose. Brail sprang down from the couch, picked her up and carried her to the center of that great divan where the rays came to the strongest focus. There he stood, holding her in his arms and bidding her be silent although she tried to tell him something that she insisted was important.

"It is important, my prince. One of the Horde master's women has told me that some one of the Horde has read in your mind the secret of our superior speed. Your plans as to our future destination, even the course you had decided on taking, when we were at least safe from enemy observation, must be changed, because it has been radioed back to the Horde's fleet commander, at Bersalt. We will shortly be pursued by some of their ships that are as swift as our own and perhaps much better armed, if we delay.

BRAIL laughed and held the favorite's slight body closer.

"Fret not yourself, my Mirrla. Against such a contingency I have a choice of at least four different plans, tentatively under consideration in my mind. Which one they thought they read, I know. Space is vast, my girl. I shall plot an unpredictable course of zigzags, curves, toward a destination of which I no more than you are aware, except that it be far distant."

Norla interrupted.

"The Horde has an instrument which detects most minute quantities of gas in space. With it we can hunt down a spaceship as a hound scents a rabbit, by the smell of its exhaust on our instruments.[8] Since they have ordered our ships pursued, they will continue the hunt, for seldom do the lazy idiot rulers rescind an order."

"What, then, shall we do, in your opinion?" asked the prince, curiously.

"We should lay several false trails while we yet have time, and then describe a perfect circle in space for several revolutions and shut off the rockets. Momentum will carry us beyond their ken on a tangent to the circle undetectable in any way."

"Wisdom is wisdom," quoth Brail, "Why don't *I* think of these neat tricks?" he moaned plaintively, as he laid Mirrla's body gently in the center of the huge couch and himself sprang to the floor. "I'm going to give orders immediately upon your suggestion."

IT WAS several hours later when the two couples stood in the bow of the largest ship that was Brail's, built expressly to suit him. They were listening intently with the ultra-sensitive devices for the pulse of disintegrant magnetic which was the telltale of a rocket tube explosion borne far in unimpeding space. At last it came, the muted thun-

[8] Just a pair of conductive plates heavily charged in the nose of the ship. The gases ionize and cause leakage between plates, which register on instruments after augmentation. Like a vacuum tube, the amount of gas between anode and cathode varys the flow.—AUTHOR.

der of many ships. Their faces told their dismay.

Brail said: "They are probably approaching the place where we left the false trails. They will undoubtedly follow one of them."

He laid his hand over the pilot's on the tube-firing levers, as though to keep the ship silent by his will.

Steadily the noise grew louder. Brail wondered if all their hopes for a sane, free life to be wiped out in the blazing rays from the Horde rulers' efficient young dupes. The sound grew—then died away, but not altogether. Now it was the staccato tick-tick of one ship that continued to follow Brail's ship on its course.

"They have split," cried Norla, passionately angry at the discovery. "They have sent ships on each possible course. We must have left some indication when we abandoned the circular course and a part of the gas followed in our wake and left a faint trail which they could follow."

"We cannot change our course now without starting the rockets. They cannot locate us exactly unless we do that," Brail offered.

"The course is nearly our own but I don't understand how it can be just the same," Lori muttered. "He may follow that course until doomsday and if we give no sign he will not sight us."

"We shall let the ship ride as it is," the prince decided. "He will gradually overtake and pass us, unknowing."

That was just what happened. The tick-tick of the rockets on the pursuing ship grew into a great boom-boom from the augmentor, but no sign was given by Brail's ships and slowly the sound drew away ahead of them.

A week later they had still not turned on the rocket tubes.

Norla felt that if they did not run into the bunch when it was on its way back, they would be safe from the Horde's pursuit. At least for the time being. She declared to Lori that they would continue hunting until they discovered their quarry.

"They are animated by the fear in their rulers," she explained. They have a fear of retribution and must stamp out all possible opposition. That fear in the rulers' minds is habitual, hereditary. It is their main motive for conquest. I have often read it in their minds. It is an ever-present thought.

"Of course, most of their thought is pure reflection from their thought-reading apparatus, never their own, but that thought *is* their own and it is always there, just as a dung-beetle always has a yellow belly. If any power exists but what they call their own, they fear it automatically.

IT WAS many months later when they hung over the city of Kosi on the planet Bilbak. For several days they had hung there just beyond vision range, taking stock of the city and its people over the thought-cloud's pictured rays. Kosi was the ruling city of the largest state on the planet. The peoples were not yet advanced to the state of space travel and were in truth in a state of barbarity, but they were humanized, a beautifully built race of deep brown color, never spoiled by contacts with the corrupt governments of space.

Brail had decided to take over the whole state by insinuating himself into the ruler's palace in the same way that he himself had been overcome by the Fat Ones who had ruled from behind the scenes. To do so was simplicity itself. He swept the great cluster of attenuated minarets that was the soaring roof of the palace with the vibratory ray, set at a rapid rate. The building was undamaged by the alternate push-

and-pull of the magnetic, but the people fell unconscious from the concussion of brain jarring against their skulls. Then in the dark, with a great thunder of jets, the ship called *Starbound* hovered for a moment over the palace and a hundred parachutes blossomed briefly over the minarets and then were gone into the black shadows of the palace gardens.

When the courtiers returned to consciousness, Prince Brail and his hundred men were concealed in the private quarters of the ruler, and a hundred tiny mental control rays covered the mind of every important official in the building. They would in future act and think precisely as the rays told them to act and think, but none in the palace entourage could detect any change in them. In the morning the little fleet settled on the fields just outside the city.

The ruler, thinking by the will of Brail, ordered a great festival of rejoicing and a procession to welcome the mighty visitors from the skies. The planet was one with no tilt to the pole and of an even temperature. The people were of a happy and careless nature, especially on a festival day such as this one ordered by their ruler. They wore little more than garlands for they were not burdened by false modesty.

The visitors were driven from the ship to the palace in the center of the city, down an avenue of natural beauty. The motive of power of the conveyances was furnished by great, prong-horned deer, and the two-wheeled carts were hung with festoons of flowers. The space visitors were pelted with blossoms as they drove through the throngs. The people sang a song of welcome, a laughing song of many soft, lilting cadences. All this natural and kindly behavior was tremendously stimulating to the visitors, seeming to promise a really happy future, free of the horror they had known so long.

In the palace they were given apartments large enough to have accommodated twice as many guests. A great feast was spread and everyone seemed to get gloriously drunk in no time at all. The palace echoed with shrieks of laughter and the courtiers danced—it was a kind of overstrained and mercuric Mardi-gras. When at last the noise died down, the most prominent of the visitors were summoned to a council in the secret quarters now occupied by the red-haired prince.

MIRRLA sat beside the prince, who presided at a long table about which were seated his private councillors. The girl looked glowing with health, such had been the result of the treatments in Norla's chamber. Her eyes shone with pride at the success of their undertaking, as they rested fondly on the face of the prince. Lori and Norla, side by side, had eyes for each other more than ever.

Brail spoke: "It is possible to boil government down to a single principle, and succintly stated it is this: Remove evil intent. It is quite true that there would be no evil, no trouble in life for men, were there not an intent to make trouble living with them. We know what this intent is. It is caused by exterior detrimental force overwhelming the natural interior generative force of the mind, due to weakness and to a defective dielectric material that normally shields the cells and nerves from this everpresent and penetrative force, disintegrant electric.

"This defective will flow in a man's brain is the cause of evil, *is* evil in result for all of us. We know how to detect the pressure of this detrimental electric of the will in a man's body and brain. We have developed meters which

register precisely the amount of this detrimental within a man, and also precisely the quantity of beneficial force, the natural electric of the cells' own generation. We propose to use these meters and our own experience in their application to remove all ill intent from this land we have surreptitiously taken over unknown to its people.

"Without the people's awareness of our methods, we shall test every member of this court and from them work down through the whole land until of all these millions of innocent, ignorant folk not one is left whose body harbors the weakness to respond to detrimental force flows instead of his own body's natural electric. Are there any dissenters from this plan?"

Someone murmured sotto voice: "It would be hard to dissent with your logic."

Brail smiled, then went on.

"After this first most important step has been accomplished, we shall build schools and factories for beneficial rays and stimulative mechanisms of various kinds. All the houses will be gradually changed to some form of Norla's life-chamber, where the beneficial force cannot get out but goes back and forth forever. When all this work is well under way and the people are happy and on the way to be intelligent, I have a project in mind which may be more to your liking than this one. It looks like a lot of work but it will not take as long as you may think, particularly as we shall train thousands of these young brown-skinned man animals in our advanced methods. They will be the future secret rulers, and we shall again be free, if we so desire."

"CAN'T we give them an elective form of government?" Lori queried.

"It will be a century before they could be ready for that. We can only give them intelligent, well-meaning rulers. Since those rulers will not be of their choice, it is better that the rule be secret and hidden."

"Why do you not take the throne, Prince Brail, and rule here openly? You are fitted for it and the opportunity is here," Lori said, and Norla nodded smilingly at his vehemence.

"Because there is a vast strength in secrecy for small groups, which I have seen enough of to covet for myself. As long as our rule is secret, our enemies will not know us, nor will they know what we do. An agent from the Horde, scouting among these people, would have no idea what to expect in battle from them. As soon as possible, our ships must leave, ostensibly taking us all away. Actually, we shall take the ships out of sight and then return to a hidden base which we must build at once.

"Soon all trace of our visit here will disappear, except that certain devices will rapidly be 'invented' and manufactured for general use. One of these must be a beneficial ray generator, to make the people smarter and healthier and incidentally, infinitely more decorative. Another is a thought helmet, which will enable them to know each other truly; that is a great remedy for evil mistakes, a thought augmentor. Such things will rapidly change the life of Bilbak. In ten years the citizenry will be far beyond the suppressed slaves of the Horde and other like empires of intelligence."

"In my opinion, prince, they are beyond them now," Lori said, smiling as he thought of the uproarous feast and dance that had surged about the palace and through Kosi all day. "They are carefree and happy. Their ruler is well meaning if not overly intelligent. We should see to it that our program of

education doesn't rob them of their joy in life. I have never seen anything prettier than the unembarrassed love and laughter in that bunch of grown-up kids today."

The prince nodded, understandingly.

"I plan to protect and increase just those beautiful qualities in this race. We can expect trouble as soon as we begin to introduce change; trouble from the conservatives always present. You, Lori, will be our representative. You must announce to King Tholand an idea of what our plans are, and so prepare him slightly for the changes coming. Let him know we intend to make his race strong and able."

"You're giving me a big job," Lori protested.

"You can do it, Lori," Norla declared, eyes flashing.

"That he can, Norla. Give the king a good talk. Sell him on what we intend to do for his people. I can control him but I don't want to have to bother all the time with any objecting will in his body."

THE testing of the citizenry of Kosi was received with much hilarity and met with popularity, entailing as it did many new and startling experiences like seeing one's thoughts take shape in the thought cloud of the apparatus and watching over friends' souls laid bare in the same way; receiving badges indicating one's status and particular capabilities. The detrimentally inclined were particularly pleased with the great honors shown them and with their badge which read "Potential Ambassador." They did not learn that they were to be ambassadors to an uninhabited planet until they stepped out of the ships and it left, abandoning them forever marooned where they could harm no-one.

The young people were particularly enthused over the love-testing apparatus performance put on by the remaining unwed women of the expedition in selecting mates from among the stalwarts of Kosi. Although the young Kosians were to be honored greatly by alliance with such godlike creatures from the skies, the strangeness of such relations soon wore off in the hilarious proceedings. The desire of those innocent young men of Kosi for the women of the slave courts, who had been trained since childhood in all the arts of seduction, who had been chosen as concubines by the richest men of the empires of space from among the most beautiful women of a hundred densely populated planets, was a thing that taxed their meters to record.

While the women of Bilbak were beautiful enough, they had not the art of adorning and enhancing their beauty, nor had they been trained in the love-arousing motions of the body in dances and other arts of which a great empire is always productive. Although free to enter the competition, their meter readings were low when in compettion with the women from space. Lori's heart went out to some of them as he saw them lose life-long sweethearts to the houris from the skies. To Norla he said: "Something should be done for those girls who are robbed of their lovers. It isn't fair."

"What would you do, Mirrla?" asked the green witch curiously.

Mirrla's solution was simple.

"We shall select the brown women especially to be trained in the use of stim and like apparatus. They will soon be able to choose whom they please from the men of Bilbak. Love can be created in any man by the proper use of the apparatus. A beauty school would not be a bad idea, either. They have such lovely bodies and such glowing life in them, it is a shame that they do not know how to make the most of

their possessions."

MIRRLA had been intrigued by the clever way in which Brail had not neglected more serious matters, even while attempting to create a newer and happier way of life for Kosians. A month had barely slipped past before the expeditionary fleet lifted from the surface of Bilbak, ostensibly leaving forever; actually to disappear into the night, only to cradle in a cavern deep within the planet. Into this cavern Brail had sent many thousands of workmen and already two new spaceships were built up in skeleton form. All the mining tools, the smelting and metal treating machinery had to be created as the workers went along, for there was little if any of such apparatus in Kosi.

A year passed as swiftly as had that last month before the feigned departure. Now the factories were roaring night and day, making mental augmenting devices to awaken the people's awareness of life and create the incentive toward a fuller life of study and acquisition of the rare pleasures and arts brought them by the sky visitors. A chamber of the type developed by Norla was also manufactured and installed in homes selected by the meter tests of those most intelligent and most well intentioned socially.

Brail had been much amused and highly delighted when competition raised its head. He observed a bootleg stim and chamber factory come into being, selling a spurious set of apparatus of apparently similar kind to those unlucky enough to have been left out of first choice distribution of the genuine. He had not really thought the race developed enough to understand and manufacture those complicated devices and was more than pleased to find that the copy was not harmful electric, but developed a mild beneficial result. Progress had arrived among the Kosians.

The red-haired prince was also much gratified at the way Norla became persona grata with the Kosians. The people realized how much time she gave them, working with her rays and with newly developed rays, and knew that over the conductive paths of the beams she always sent some of her love polarizing magnetism, tuned to the electric of her own body, so that they could not help but love her. Her strange green beauty attracted them as it had the young pilot, in a weird, unearthly way. They could not keep her out of their minds and hearts and worshipped her, many quite openly and formally prayed to her as to a goddess.

WHEN the time came for the exodus of the sky visitors, Norla and Lori elected to stay behind and remain in the public eye and by Brail's counsel to become in time the trusted link between the secret rule by Brail and the open rule of the native princes. This the prince had asked them to do because they were the most popular with the court.

The weeding out of the dull and ill-intentioned had brought life and sparkle to the court which complemented the love and enthusiasm that burned in the tall green body of Norla as many lights complement a diamond. The dark vigor of Lori, always at her side like a devoted guard, set off her fair, cool emerald fire, for their love, which Norla had built to supernatural pitch with her wizardy, became a kind of legend among the Kosians, who spoke of two lovers being as enwrapped in each other as the two from the sky, the good witch Norla and her soldier spouse.

Within the year, Brail had built a fleet of twenty small fighter spacers. These he set as a guard about the plan-

et Bilbak to warn of invasion. Likewise great vibro-guns were set in every city to protect against unexpected invasion. Now he was able to visit Kosi as a stranger, arriving in a new ship from the factory caverns. He could at last propose the trip to discover that dark Goddess from whom he hoped to receive wisdom to evolve new weapons that would free Kosi forever from any fear of an invasion from the Horde that could be in the smallest degree successful.

Thus is was that the apparatus and Brail's wisdom and Norla's inventions infused a new spirit into the land of Bilbak. With the meters for testing character, as well as the thought cloud projection apparatus always at hand in the court, with which the councillors sounded each others natures to the depths, all knew each other so well that trouble and strife did not get a chance to breed. Norla, working with long range apparatus, instilled an abstract love for their fellows deep into the core of each of the key men of the government as well as in most of the merchants and important personages. It was not long before the city became a little Utopia and its happiness and unique new methods spread like wildfire over Bilbak.

Shortly after that momentous year had passed, filled with the joy of accomplishment, a strange looking spaceship circled slowly over the city and settled to a landing at the city gates, after announcing friendly intentions over the television in the palace. Attended by a welcoming group, Norla and Lori went out to meet the strangers. With a sense of impending disaster Lori noted the uniforms of the Horde while he and Norla were yet at a distance. Then his discovery turned into keen but concealed amusement when he recognized at the head of the waiting visitors Prince Brail, resplendent in the uniform of an admiral of the Horde. What was the reason for this masquerade, thought Lori, puzzled. He recognized the prince's attendants as some of his comrades, once more in their old uniforms.

"Lori, what is Brail doing in a Horde uniform?" queried Norla.

"We'll soon find out," the young pilot replied and laughed as they approached the visitors.

The men of the Horde whipped hand rays from under their tunics, deployed so as to surround the peaceful welcoming party, and then in a loud voice the red-haired prince demanded the bodies of Norla and Lori, or they would be dropped dead in their tracks. There was no possibility of resistance, as the newly built apparatus in the palace at Kosi, although overlooking the scene, was in the hands of men who knew Prince Brail as their real ruler. Hence it was but the work of a few minutes to seize the green witch and her spouse, several of the slave girls, and a dignitary from the court particularly liked for his constant witticisms and hustle them roughly aboard the ship, which then took off with a roar into the heavens. The people, furious, stood around consumed by their impotence, for Norla and Lori were beloved by the entire nation.

"JUST what," asked Norla indignantly of Brail, "is the idea of kidnapping us in this rude fashion?"

"First of all, lovely Norla, I longed to see your faces. And secondly, I wanted to show those beautifully careless Kosians that they must prepare for danger always or be overcome at the first blow. My men are going to launch a campaign of preparedness on the strength of this little incident which will not cease until the whole planet

of Bilbak is impregnable to any known modern method of assault. Last of all, I am going on a little trip into a dark place," he grinned, "and I need Lori as a guide and Norla for her wisdom. Is that clear?"

Mirrla and the green witch embraced as if they had been parted for years and went off on some feminine business of apparently vast importance, judging by the chatter that marked their going.

Lori accompanied Brail to his cabin. There the prince broke out a vast book of space charts.

"You may remember, Lori, that constant dream of yours about a dark Goddess of life, afar in space? I spoke to Norla long ago of your dreams and her part in them and she gave me an idea that consumes with curiosity to see if she is right. She is so often right, that I can hardly doubt her.

"She has made a study of dreams, knows what causes them, how to create them, in fact, all about them. She told me that she had not created your dream of the dark Goddess in space, but that its repetition through the years proved to her beyond a doubt that you were sensitive to some great living thing in the part of dark space that seemed to draw you; that she knew beyond a doubt that some god-like being lived there in space pretty much as you dreamed about its doing.

"Now I propose that we go there and if this great being exists and is the beneficient force you picture her, she will give us wisdom, perhaps even the wisdom of immortality; at the very least we shall obtain a knowledge that will enable us to build weapons to make our little world of happy people truly impregnable. What do you think?"

Lori was very thoughtful as he replied: "Norla may be right. As you say, she so often is right. Certainly such a being would not harm us. I am not certain that I can guide the ship there, but I certainly can feel the direction in my mind, as though I were a living compass."

"It will be a great adventure," cried the prince.

"If mischance should come, our people of Kosi are started on the road to fairer life. If we succeed, the road to broader life will be easier and quicker to find. Besides, it is an old ambition of mine, to take my own ship and go there into the dark spaces.

"Did you notice the ship particularly as you entered?" asked Brail. "Come, I want to show you the life boats." Outside the cabin, a tight little twenty-man trip-ship lay in its tube, ready for instant launching. "You didn't see it, did you? On the bow is painted the name of the mother-ship . . . *Lori.*

"Since the expedition is to your goddess, I have named the ship for you, my friend. Since in truth it changes nothing, I make you a gift of it. Do as you will, however, I must go along."

THE young pilot stared at the red-haired prince gratefully. His voice was choked with emotion when he managed at last to speak.

"Our wishes are coincident, my leader. It changes nothing; I understand what you mean. I thank you for your generous gift. I shall serve you well with it, be sure. The *Lori* is a beautiful ship. When did you build her?"

Brail explained that he still had the plans for the original five ships that had been built in Bersalt caverns. There had been added to this new ship several improvements, after detailed examination had been made of the ships captured from the Horde. "Much apparatus is from ships spare parts, carried in our own ships. She represents the com-

bined knowledge of two empires of space modified by our own lack of workmen and technicos and proper equipment to build her with, yet she is the fastest ship I have yet had under my proud feet," the prince finished.

"It will take us a twelvemonth, I approximate, to reach the dark spaces," Lori estimated. "It has always *felt* to me to be beyond the star of Wilotar."

"You do not yet know the rate of speed of your ship, Lori. At our acceleration of 500 miles per second, we should reach that area in little more than half the time you make it. But it will take some time to figure out how to reach the precise spot and we cannot do much searching at high speeds. So it may in the end take the time you say, althought our return trip will be much quicker because we will know exactly where we are going."

"You seem satisfied that you will actually find some great being there, Brail," commented the other man.

"Since Norla says it is no vision, but a strange sensory perception of a living fact, yes, I do feel sure."

FREE of the apprehension of pursuit, with a feeling of worthy accomplishment behind them and an immense anticipation of the adventure ahead, the trip seemed an idyll. The muted thunder of the activating rockets at last died and the quiet that is space at its best lulled the whole ship into a restful state of timeless enjoyment of each other's company.

Norla's special apparatus had been installed in the ship and a strong focusing field about the entire ship brought a stimulating richness of that essence of life-energy ash, which fills space, into the very core of the vessel. Her reflecting materials coated the interior of the ship except at the points where the field focii entered the hull and the result was a strong concentration of the stuff from which all matter, including living matter, grows. This richness of life material gave the senses an immense power of perception; every natural function, including thought, increased steadily in potency until life aboard ship became an unbelievable idyll of stimulating mental contact, brilliant conversation, and incidentally, love between the sexes. So the travel-year passed like a dream, a very beautiful and precious dream, filled with loved faces lit supernaturally by intelligence and infectious gayety and also with deep and irresistible love.

The owner of the new ship spent many hours in the control room in the bow, peering at the instruments for first sign of the goal aheal and at last he corrected the course to a certain pair of dark planets. The source of the abstract mental call seemed to come from these or near them.

THIS was dark space, these two planets had never been under the light of a sun. They could only be detected by obstacle alarm instruments until the *Lori* approached within appreciable gravitational influence. They swung into a wide orbit about the pair of planets. Every instinct told Lori that this was the source of the call of the Dark Goddess. But though he sensed her presence strongly, he could not tell precisely what he was expected to do. Norla solved this problem.

"You put on the cap of the thought cloud device, and go to sleep. Then you will dream of your Goddess and we will watch the dream in the cloud's pictures. Surely if she makes the dreams or if your dreams are a reflection of her powerful thought-life, we can tell more about her from the strong augmentation of your perception of her in the thought-cloud."

So Lori swallowed a couple of sleeping tablets, donned the thought-cloud's helmet, and drifted off to sleep under the caressing hand of his beloved Norla. Soon the swirling vapors of luminous mist in their prisoning magnetic field gleamed with the dream's beginning.

Below the frigid surface of the nearer planet was a strong beautiful life calling in a voice that never ceased. Toward this voice Lori was flying, an arrow of mist. Through the hard granite and frozen air of the surface—through the gradually warmer strata of rock—to emerge at last in a cavern filled with rosy light everywhere, and swift and happy feet racing by. Planets of awesome luxuriance hung their fruits and flowers over the webs of paths. Laughter tinkled always there, and love was a thick, supporting essence in the scented air.

But the questing mist that was the dream of Lori flew on through the cavern, to rest at last before a great pool of green, sea-scented, lapping water surrounded by marble seats where many people sat, but did not speak. They were waiting by the pool of the Goddess, and Lori waited, too.

Presently the water swirled and broke in many silver gleamings and from the center rose the vast and beautiful head, the long dripping hair that was not hair, the great eyes and wide scarlet mouth, the gleaming shoulders and tremendous long arms ending in webbed fingers, the red tipped breasts, the pillaring waist, the hips that did not divide into legs but into two great serpentine drivers, ending in the wide tail fins of a fish.

She was a tremendous creature from some forgotten sea, and she took a throne-like seat above them, her silent adoring people. They bowed their heads, and then all began to speak at once. But she pointed at the nearest, and they stilled. He, a man of green skin like Norla, spoke.

"ABOVE us in the dark a ship circles in answer to the call. It is long since one has answered the ancient call, and so we do not know if they are to be admitted."

Her voice was a great bell of meaning in the cavern.

"Of course, admit them. The Gods of the Dark Places do not refuse the children of the deadly sun's their wisdom. That is why the call exists, why the great vibrations of the dream-maker mechanism throb always through the surface towers—to call the worthier sons of the mortals away from their deadly sun's light and into the dark of space where they will not die. Admit them, teach them, then bring them to me."

The great voice ceased and the people filed out of the room, and the woman who was not a woman, but an ancient Goddess sat dreaming above the scented water, her great webbed hands supporting her face. And the mist that was Lori drifted up and caressed that face and she smiled, saying softly—*"I know."*

And presently Lori awoke. But he did not forget the dream as Norla and Brail and Mirrla had watched the thought-cloud while he slept. As Lori arose Brail spoke—

"I take it that we are to be admitted to something very strange and very beautiful, those caverns beneath the icy face of that world below. But what did she mean by mortals and Gods. Do you suppose they are immortal?"

"I think we are going to learn," cried Mirrla as the ship swerved suddenly under a new impulse and began to sink swiftly toward the dark, frozen world.

A great opening glowed brilliantly below and from it tall beams of power

played upon the *Lori,* drawing it in slowly. Soon they were nested in the vastly too large cradles of the entrance and behind them a great airlock swung shut. Air hissed into the great cavern entrance chamber.

As they hesitated before the door locks of the *Lori,* a voice said in their ears—

"It is quite safe to come out. You are in our power anyway."

It was so that they entered the caverns of the Dark Goddess.

PRESENTLY they stood before her and gasped to see the vitality that shone from her, to feel its strong surge through their bodies tell them that a God's life is a powerful life. Her skin was black as night itself, with a purple irridescence rippling over it like heat lightning, her lips were a scarlet flame about her gleaming teeth.

They looked long on her and she on them. At last Brail spoke.

"All my life I have heard of Gods and Goddesses, demons and angels, efrits, leprechanus and other immortal beings. They were supposed to live forever, and yet I have always seen death to be inescapable by any life form. If you are immortal, tell me why you are immortal and others mortal. For I do not believe in immortality."

Her answer was long in coming—

"Long ages ago, a great ship set out from its mother planet. They were loaded down with all the requirements, the equipment for living, to colonize another earth, far away. Among them were some very wise scientists. Their ship broke down far from the light of any sun, in the deserted depths of dark space. They drifted to a landing upon a frozen earth, an inhospitable world, apparently. They could not repair their ship, and when their fuel began to run low, they burrowed deep tunnels into the rock, where the pressure creates heat. There at the level where the warmth was best suited to their nature, they carved out a dwelling, moved in their machinery and equipment and food supplies, brought frozen earth from the surface and planted seeds.

"It was a terrible task. At first many died. But after a while they learned how to live in the caverns where the pressure serves the purpose of heating, and the difference in temperature from the surface can be used to build thermo dynamos to create power and make artificial light for the plants. After children came, they grew numerous again.

After a lifetime had passed, they learned a tremendous thing. None of them had grown old. Instead, they had grown young; instead of aging, they were growing like children again. At first they could not understand this, but their scientists solved the mystery. Their suns were the cause of their age; where there was no sun, there was no age.[9]

"So the first immortals of dark space came into being. I am partly a child of that race, though my seed was altered in their birth laboratories to adapt me to life in the sea. This planet is at present my home until I grow too big for it, then I will find a larger. It amuses me to call the mortals of the

[9] There is a great deal of evidence that radium and similar disintegrant metals come from the sun as single atoms—permeate the soil for centuries, are gathered up by erosion by rain water and hence into the body and into trees and plants. There they accumulate and are the cause of our death by radium poisoning—*alias* AGE. The men who know this are making successful efforts to solve the problem of keeping these deadly seeds of the sun out of the body. Some success has been achieved by distillation and centrifugation of the fluid intake of experimental animals. In time, by this method, it is expected that life will be prolonged two or three times the present life span.—AUTHOR.

sun blighted worlds to me, that they may learn how to live in the dark lands. So it was that you heard my great transmitter of the dream-call. So—you are here."

Her great voice went on—

"Now you are free of the deadly little sun seeds which gather in the body and kill all life near a sun. Now the older you get the stronger and larger and wiser you will be. You may stay with us until you have learned our methods of life, then you may choose whether to join my people or seek your own way of life. Many people used to come, to stay with me always as my friends and my strength. But they come no longer, something has happened to them. I am Alfreya, the Dark Goddess. You are welcome here."

THE medicoes of the people of Alfreya were men who had lived under her age-old wisdom for centuries. They had learned things no mortal man ever learns. Soon after Brail's party arrived, a dozen or more of these scientists arrived in their quarters, accompanied by a formidable array of apparatus. They inoculated, injected, transfused bottles of gleaming fluid into their veins, took x-rays, measurements, blood-tests. For days this went on and the last treatment of all was this:

"You see, each cell of the body feeds upon subtly different substances, all of them manufactured from the ordinary food by the glands and organs of the body. And there are several substances and compounds which occur naturally in food, which are more acceptable to some types of cells of the body than others. We synthesize most of these compounds, and by injecting certain ones into the blood stream, any particular type of cell can be fed better than the others. Now, the nerve cells of the body and the thought cells of the brain are the most important in the body; their health or illness determines the character of the human, as well as his awareness to pleasure, danger or pain. This injection is of those substances most needed by these cells. It will cause a renewed growth of the whole sensory system as well as of the brain. You will find your awareness of life increasing tremendously, your fingers almost able to see, your pleasure nerves a hundred times as able to transmit pleasure impulses to the brain—while your thought becomes a multiple of the normal amount to which you are accustomed. This injection is your entrance into Nirvana, the place where people dwell who can really feel, think and have emotions. Your past life will become a dull gray memory to the vivid, intense life you will now lead."

They injected, from hypodermics of a huge size, a yellow fluid slowly into their veins. It ran like the fire of love through their bodies, strange new colors coruscated before their eyes as the powerful stuff began its work. They could hear men thinking at great distances, feel the vibrations of a man walking a half-mile away. Every perception became a tremendous thing to the puny sensation it had been, as the growing nerve cells began to function at a strong new rate of growth and renewal. Already they were more than human.

TO NORLA, the greatest thrill in those caverns of the frozen world of the Immortal Goddess Alfreya, were the libraries of books from the myriad Dark Cities of Endless Life on her race's planets. Written by men who had had an age, a thousand thousand years to learn how to tell a man what they wished, illustrated by artists

whose hands had painted with the brush for uncounted centuries, these books were too vast of meaning for a mortal to fully understand, but their beauty and immense significance were irresistible. What she could learn from them was so illuminating, so fascinating to her that Lori could not get her out of the book rooms even to eat.

Months went by, and daily they attended classes, for Alfreya's planet stood at the edge of a sun-poisoned area, and was formerly a sort of entrance school for mortals who were to enter the immortal paths of the dark areas of space. Now the ships came no longer to answer the call the huge thought transmitters sent out forever. Lori surmised this was due to the stupefying influence of the pleasure ray cliques such as ruled the Horde, who customarily removed anyone capable of thinking for themselves from the living.

In the classes they learned how the great underground greenhouses of the cities were built, how they were heated from water piped deep into the hot substrata and back again. They learned what light rays were needed by the plants and how to make them. How to build the thermo electric generators which operated on the difference in temperature between the surface cold and the hot rocks of the depths. They learned how to build a disintegrator[10] powerful enough to bore such caverns into the shell of a frozen planet without labor. And from this disintegrator Brail designed a weapon which he was sure would protect the little world he had set on the path to greatness from the power of the Horde.

This had been his original purpose in the trip to the Dark Goddess, to obtain a weapon to make his planet impregnable to the Horde. But now he knew the hideous nature of sun poisons, and knew that his real problem was how to transport the masses of people from his sunblighted planet to some new and sunless world.

THE *Lori*, after some months, was equipped with these small but infinitely powerful in-oxygen generators and Brail felt that no ship in sunward space could meet them in battle and live.

When Alfreya at last pronounced them ready to begin their own immortal life on a frozen planet, they bade their

[10] The disintegrator, simply explained, worked like this: Fire must have oxygen, and atomic fire must have a substance which we will call in-oxygen; in to designate the smallness of its parts. A sub-atomic oxygen supports atomic fire. This in-oxygen is a secondary integration—the product of two primary integrations in combination. These primary integrations are the first step in the formation of the atoms from the ash of suns—the ex-disintegrance which—expanding from all suns, fills space with its tenuosity. These two basic integrations were condensed from the etheric flow which penetrates everywhere, by two separate mechanisms. These were tuned magnetic field lenses, generated from a powerful little dynamo of a strange design, for it made, not electric, but a sub-electric of very different properties from the larger electronic flow. These were equipped with coils which spread the penetrative, powerful field lenses over an area of miles and focused all the etheric flow which contained the particular sized particle desired. This primary integration flow was focused upon an accumulator. This accumulator charged the fluid of a battery whose nature Brail did not understand but which held the material until needed. These two mechanisms were set up and charged—then the conductive beam from each was focused where the atomic fire was to be created. As the two beams met, the in-oxygen which supports atomic fire was created from their union. Since a vastly greater supply of in-oxygen was created than is normally present, atomic fire sprang into life, just as oil will burst into flame when pure oxygen is played upon it from a hose. As this twin beam was played upon rock, it sprang into tremendous flame, melted and ran like water. When the beams were shut off, the fire went out, just as ordinary fire goes out if it lacks oxygen. The range of the beams was enormous as the particles of primary integrance are so small as to be hardly impeded by any material. So the weapon could be hidden in a deep cavern and played upon a space ship far beyond the range of any known weapon and the ship would burst into flame, become a nothing.—AUTHOR.

immortal friends a grateful, temporary farewell, and once more the *Lori* lifted into the ever-night.

Over a council table that night, the friends sat long, their now wiser, infinitely more sensitive and loving faces frowning. Brail summed up their decision.

"So we will make one trip to our friends, back into the deadly light. We will set up the machinery for transporting all the people to our new home on the planet Alfreya suggested. We will start the building of the migration ships, then outfit our present small fleet and leave ahead of the migration to prepare a home for them. It is a big job but it is our duty. I think we have seen enough of things called men who fail to do their duty. So be it."

They lifted their glasses in a toast—

"To the new and immortal race we will build and to our new found friends, the Gods who dwell in the space-dark. And to our leader who has made this future possible—All Hail. May he continue to lead us forever."

The happiness that sure knowledge of an infinite future of life and growth and youth gave them showed on their faces in a strangely hallowed light as they drank.

THE FRENCH DWARF

RICHEBOURG, a dwarf, played an amazing role in the French Revolution. When he had reached his sixteenth year, he stood only 60 centimeters high. As was the custom in the royal families of that period, he was placed in the court to amuse the royal children. They could not know then how useful he would prove to them. The family of the Duke de Orleans owe their lives to this tiny fellow.

Several years after he was placed in the household of the Orleans family, the Bastille was stormed, the September massacres took place, and blood flowed like water through the cobblestone streets of Paris. The nobles feared for their very lives, and they were fully justified. No one was spared. Heads were falling by the hundreds in the public square. Some nobles were able to hustle their wives and children out of Paris by devious means. The Orleans were bent upon escape also.

This they meant to achieve by contacting their friends outside the city. But the fields and forests were filled with enraged peasants. Finally Richebourg came to the aid of the distraught duchess. He suggested that they dress him up as an infant. All the urgent communications could be placed in his clothes. Luckily, the most suspicious Revolutionary could find no reason to stop a nurse with a baby in her arms. The Orleans family were forever grateful to Richebourg and for the remainder of his life they presented him with 3,000 francs every year. In 1865 in Paris, he died at the ripe old age of ninety-two. -*Sandy Miller.*

IMPORTED KILLERS

IN THE wild 20's when gang wars were the rage in many of our big cities, killers or torpedoes (to use the underworld lingo) were often imported to bump off an undesirable individual.

But now I'll tell you of a "killer" that was imported from Australia to "rub out" an enemy that was threatening to destroy our citrus industry in California. This vicious little character was called the cottony-cushion scale, a small, white insect. It arrived in California in the late 1860's and found the climate and the citrus trees very much to its taste. So the scale decided to settle down and roam no more—in fact, by 1890 it had become such a pest that the entire citrus industry was threatened with destruction. This called for total war so the citrus growers called in some detectives in the form of federal entomologists. They discovered that the other citrus producing regions of the world were divided into two classes, namely, those who were bothered with the cottony-cushion scale and those who did not have it at all. Only one region, Australia, had the insect but it gave the growers no trouble. Here lay the answer to the problem and immediately an entomologist was dispatched to discover the secret. After some research, he sent back 140 Australian lady bugs and they together with their offspring can be credited with saving our citrus industry.

In a short time these lady-bugs had eaten up almost every scale they could find in California. The entire "fee" for this job was approximately $1500 —a small sum indeed when we consider the yearly output of the industry.—*Lee Owens.*

PLANET OF THE DUPLICATES

By WILLIAM LAWRENCE HAMLING

It was going to be easy to murder Barton Elmore and get away with it. There he stood; but which of him to shoot?

HE HAD a lot of time to think of murder. And Steve Mercer did think of it. It pounded in his brain hour after hour as they shot through space.

He sat before the controls of the *Voyager,* his eyes staring unseeing into the viewplate. All he could see was the tall gangling figure of Barton Elmore. Elmore with his thinning shock of gray hair moving back from his high, broad forehead—his shoulders round and stooped as he neared sixty. Those watery blue eyes hiding behind thick lenses. Elmore was getting old. It would be natural for him to die. Why should he live off of glory in ease and luxury while he, Steve Mercer, had to struggle to

Steve Mercer staggered back. Before him stood hundreds of figures—all of them identical.

gain recognition just because he was young?

Elmore would have to die.

"Day dreaming again! I thought you were checking the charts!"

Steve Mercer started. He turned his head as Elmore stooped his tall frame through the control room door. Mercer's eyes were hot.

"I suppose you think I never get tired of charts! It's easy enough for you to talk—you do all the ordering and I do all the work!"

Barton Elmore stood peering through his thick lenses down at Steve Mercer. The younger man could feel those eyes traveling over him from his boots to the flaming mass of red hair on his head. Mercer knew the contempt Barton Elmore held for him. He had only taken him along on this trail flight to Sirius B because of his work done at the Astrophysics Institute. And Elmore, as Head Physicist of the Foundation made his authority plain.

"You seem to forget, all too often, Mercer, that you are my assistant on this trial flight. The new Inter-spacial Drive is my creation—and it took many years of work to develop it. You're young yet. Your chance will come with experience, and until that time you are going to have to learn to take orders."

There was something cold and contemptuous in Elmore's words. And Steve Mercer felt his face flush. It was the same thing over and over. Young! Did the old fool think that age alone could produce intelligence? Anger was a red knife cutting into Steve Mercer. But then he forced back his feelings. It wasn't time yet to act. There were still a few things he had to know. Mercer feigned apology.

"I'm sorry, Bart. I guess the strain has been a little too great. We've been hurtling on this course for the past two months now.... Have you finished your checkup on the space drive warp?"

Barton Elmore grew mollified under the younger man's tone. He nodded briskly.

"Yes. My calculations have proven to be correct. And when we get back I'll prove that my conception of space power is right. From now on we won't have to depend on rockets—we'll have space itself for our power!"

Steve Mercer goaded him on. "How did you finally come to develop the Drive?"

Elmore shrugged. "The Drive itself was simple once I was able to prove that space is actually a storehouse of energy —and what could be more logical since countless thousands of stars are erupting billions of tons of matter a second into energy and hurtling it out into space.

"Where does this matter go? What happens to this tremendous flow of energy? Since matter and energy are indestructible there is only one answer—*space is not empty, it is filled with the exploded energy of a myriad erupting suns!*"

MERCER appeared eager and allowed his eyes to show awe. "Then developed the Drive to tap the energy of space . . ."

"Exactly," Elmore replied. "Of course, it necessitated an entirely new principle of astro-physics, but once I had the theory, the Drive was but a question of time. You've seen some of the plans, the rest I'll show you on our return trip."

Steve Mercer turned his eyes away excitedly. The rest of the plans! That was all he needed and the Inter Spacial Drive would be his, with all the power and money he ever dreamed of! But there was still Barton Elmore . . .

"If you had been checking the charts like you were supposed to you would

have seen we've entered the system of Sirius B during the past half hour!" Barton Elmore was stooping his tall figure over the space charts and moving dividers and slide rule increments. Mercer shot erect in his chair.

"Already—?"

"Now maybe you'll see why it pays to obey orders!" Elmore snapped.

Mercer ignored the sarcasm. He hastily scanned the viewplate. A huge blazing star had risen in the upper portion of the plate and was growing by the minute.

But it wasn't at the star that Mercer was staring with a rapt gaze. The bottom portion of the plate showed another astral body, and much closer at hand. It was a huge planet, looming immense upon them.

Elmore saw it at the same instant. "Release the Drive!" he snapped excitedly. "We're heading right for that planet!"

Steve Mercer acted instinctively. His hands shot to the controls and buttons depressed beneath his fingers. Even as he acted, thoughts leaped through his mind. Here was an answer to his problem, a possibility he had overlooked. It would be an easy and natural thing for a man to die on an alien world. Even a man like Elmore . . .

The ship slowed steadily under Mercer's guiding hands. The tremendous power of the Space Drive was reduced with a shrill whine of reversed generator fields in the bowels of the ship. On the visiplate the planet was immense. Beside him, Mercer heard Elmore swearing.

"You damn near drove us right into it! If you had been checking the charts—"

Steve Mercer twisted around. There might have been grimness in his eyes, but Elmore didn't see it.

"What difference does it make, Bart. We're perfectly safe—and a new world is waiting out there for us—think of it, a new world discovered because of your Space Drive!"

It was the last part that cooled the older man's temper. He adjusted his thick-lensed glasses and peered into the viewplate beside Mercer. Mercer watched interest and excitement flush the scientist's features.

"Just think, Bart, you'll be the first man to set foot on this planet! You can name it after you and be famous for opening a new frontier to Earth civilization!"

Elmore straightened from the viewplate and mixed emotions played across his face.

"It would be a thrill—but this is only a test flight, there will be time enough later on for exploration. We don't know what we might find down there, and there are only the two of us . . ."

Mercer snorted. "The two of us! What could possibly happen—we have weapons if we need them—I'll carry one of the proton rifles—good Lord, would you pass up a scientific opportunity like this just for a few days delay and possible danger?"

IT WAS a play of words. Mercer knew it. And he was playing them with all the subtlety at his command. He was careful to keep himself in the background and stress the scientific aspects. Steve Mercer wanted to land on this world. He wanted to walk out on its surface with Barton Elmore. He wanted to return alone.

"I don't think we should risk it . . ."

Mercer remained silent for a moment. Then suddenly he shrugged his shoulders. "Maybe you are right, Bart. But it seems a shame that after all your work somebody else should get the credit for exploring this world later."

It was the way he said it. The way he implied it. The interest he seemed to take in the older man's achievement. Elmore straightened his tall figure and clapped a hand on Steve Mercer's shoulder.

"You're right, Steve. I'm sorry I misjudged you. They would be only too glad to take credit for it. We'll land and take a few days' rations for a short exploration."

Muscles that had been tense inside Steve Mercer relaxed. The eagerness that had been leaping through his blood rose. They would land. They would go out of the ship. And then . . .

In lazy circles they descended upon the world. Their ship, its metal hull gleaming in the alien dawn, might have been some strange stellar bird, hovering over the planet. There was no sound as the ship descended. None but the trip-hammer beat of Steve Mercer's heart.

"It looks almost like Earth," Barton Elmore breathed.

Steve Mercer nodded. He saw the outline of vast stretches of water encompassing nearly half the globe. He saw the sprawling jagged outlines of continents of land. And the lazily drifting whiffs of cloud banks that spattered the sky like lonely lambs in a blue pasture.

The ship neared the surface of the planet, over an immense expanse of land. Through the viewplate Mercer saw a sprawling mountain range, a series of snakelike valleys gouging into the earth like deep-cut knife wounds, rolling plains, and verdant, endless forests of vegetation. It might have been Earth. Steve Mercer was glad it wasn't.

"I've been checking the atmospheric contents," Elmore suddenly announced. "It's amazing—outside of a slight increase in the nitrogen element, the air is substantially the same—easily supportable to human life. I wonder—"

Steve Mercer was wondering too. But not about the possibilities of life. He was wondering about the possibilities of death. Plans leapt through his mind. There are so many ways to do it.

"You better watch out; you'll be hitting that ridge!" Elmore warned suddenly.

Mercer started and focused his eyes on the controls. A long jagged cliff of rock was looming before them. He guided the ship around it and into a steep verdant valley.

They came to rest.

. . . Steve Mercer packed the short bundle of rations. He strapped it on his shoulders. He adjusted a small magnetic compass and switched on the magnetic field circuit of the ship. He carefully inspected a proton rifle before slinging it on his arm. And beside him, Barton Elmore was hopping around like an excited boy with his first electric train.

"You don't have to carry all that stuff, Steve," he said. "Let me take the rifle."

Steve shook his head smilingly. "Hell, Bart, there's nothing heavy about this stuff—besides I'm a lot younger than you."

. . . Besides, Bart, I don't want you to carry the rifle. I plan to use it very soon. Then the Space Drive will be mine. Anyway, you are old, Bart . . .

"I'm kind of excited, Steve," Elmore admitted as they approached the air lock. "I wonder what we'll find out there?—Are you sure you have the magnetic compass working with the ship induction field? We'll need that to find our way back."

"It's working all right, Bart. I made sure. Let's go."

Elmore was the first to step onto the

valley floor. Mercer followed close behind him.

A WARM strangely fragrant breeze blew softly about them. Overhead, the immensity of Sirius B hung like an oversized medicine ball in the heavens. The light was brilliant, almost blinding, and it seemed to waver in the atmosphere and shimmer upon the landscape in cascading colors of ephemeral tints and hues.

They were standing upon the center of a long winding valley.

"Look!" Elmore pointed off in the distance toward a dark mass of forest. "There's something flying around those trees!"

Mercer shaded his eyes against the sun. Yes, there was something over there all right. "Probably some form of bird life," he suggested.

"Let's go over that way," Elmore said excitedly. His scientific interest was aroused, and Mercer allowed a smile to cross his face. Yes, the forest would be an ideal spot.

It was a longer walk than it had appeared. They walked over the smooth green carpet of the valley for more than an hour before the forest grew closer. Elmore was beginning to sweat.

"I've got to rest for a minute, Steve; I'm not used to this exercise anymore."

Mercer nodded and pointed to a large rock a few yards off to the side. Elmore sagged his way over to it and sat down.

But not on the rock.

The rock was gone. In its place was a small flowery bush and Elmore sat right in the heart of it.

Steve Mercer stared in amazement. Elmore clambered hastily to his feet and his mouth was hanging open.

"That rock—" he blurted uncertainly.

"There was a rock, I'd swear it!" Mercer avowed. "That bush wasn't there a second ago!"

It wasn't there now.

A brilliantly colored bird soared aloft from the spot where the bush had been and circled aimlessly over their heads. The two men gazed awestruck as it wheeled slowly about over their heads and then suddenly darted toward the forest.

"Am I seeing things?" Mercer breathed. "That bird was a bush just a few seconds ago!"

Elmore nodded his head slowly and a frown was creasing his forehead. "There's something strange about this," he said.

Mercer agreed inwardly. There was something too strange. And he didn't want any part of it. He had landed on this world to kill Barton Elmore and make it look like an accident, but stones that turned into bushes and then birds were not parts of his plan. He gazed over his shoulder at the *Voyager* resting on the valley floor off in the distance and decided that the sooner he got off this planet the better.

"Strange . . ."

Mercer heard the old scientist muttering. He turned and saw Elmore walking toward the forest.

Sweat stood out on Steve Mercer's face as he looked at the older man's back. It would be so easy now, just a single blast from the proton rifle . . .

Fingers that suddenly became unsteady loosened the rifle from his shoulder. Mercer licked his lips and gripped the trigger. Elmore was walking straight toward the forest.

And then there was no forest!

STEVE MERCER nearly dropped the proton gun. His mouth dropped open and stayed that way. Ahead of him, Barton Elmore whirled fearfully, and his watery blue eyes were wide and apprehensive behind his thick lenses.

"My God—look!" Elmore shouted and pointed behind Mercer.

Mercer twisted.

Just a few seconds before there had been a smooth expanse of valley stretching behind them, and the *Voyager* had been in plain sight.

Now there was a forest. A dark, wavering mass of trees and foliage. *The identical forest that a few seconds before had lain before them!*

Something inside Steve Mercer began to tremble. This was something he could not understand. Something that was impossible. Something that just couldn't be true. Where was the space ship? Where was the forest that had been in front of them? Why had a stone turned successively into a bush and then a bird?

The air was suddenly filled with birds. They soared in slow circles over the edge of the forest behind the Earthmen in countless droves. There were myriads of birds, of shapes and colors beyond description. Mercer and Elmore watched fascinated as some of them dropped to the valley floor at the forest's edge.

Some of the birds became trees.

Others turned into rocks. Around the rocks flowery bushes appeared. Mercer unconsciously moved closer to Elmore.

"What kind of a world is this?" he gasped. "Is all this a mirage?"

"Mirage." Elmore rolled the word around his tongue and then suddenly his face cleared. He laughed.

"I think you've hit it, Steve," he said.

Mercer frowned. "What are you talking about?"

"We were wondering what kind of life we'd find on this world, remember, Steve? Well, this is it."

"It? What's it?"

Elmore pointed at the forest. "All that. We've been looking at the life of this world ever since we left the ship and didn't realize it. You remember the stone and the bush that finally turned into a bird? Well, that's exactly what did happen. Steve, we've hit a world where simulacra is running wild!"

"Simulacra? You mean, perfect imitation?—absolute mimicry?"

"That's exactly what I mean. There's no other explanation. This is an alien world, nearly nine light years from Earth. Intelligent life on this planet has developed on entirely different lines than our own. Life on this planet has achieved the ultimate in adaptability. It assumes the shape and mass of its surroundings at will.

"You recall that small creature we had on Earth some centuries back called a chameleon, which changed its color to suit its background? Well this is just a full step further, where the background becomes the being!"

"Then there's nothing to fear," Mercer said, his face relaxing.

"Nothing that I can see," Elmore agreed. "It's really an interesting phenomenon of nature . . ."

Elmore's voice trailed off into silence. Once more his mouth dropped open. But this time not from amazement. There was fear and wonder in his eyes. He was looking at Mercer.

Mercer had the proton rifle levelled at the scientist's chest.

"Steve—what are you doing with that rifle?"

A harsh smile curled the corners of Steve Mercer's mouth. "I'm going to kill you, Elmore. I'm going to blast your body into its component atoms!"

"Kill me? Steve—are you mad?"

"No I'm not mad. I just know what I want, and I'm going to get it. We are a long way from home, nobody will ever know what happened to you. And once you are dead, the Space Drive will be-

come my property!" His voice became harsh. "I'm young—why should I spend my life as an assistant when I can have all the money and power your space drive will give me? You've lived your life, Elmore. Now you're going to die."

Barton Elmore's face hardened into a grim mask. "I see."

THERE was a fluttering overhead as Steve Mercer tightened his finger on the trigger of the rifle. In a second it would be all over. The fluttering grew louder. Unconsciously Mercer's eyes lifted upward.

The air was filled with the strange birds overhead. And then, just as suddenly, they were gone. Mercer lowered his eyes to aim the rifle at Elmore.

There were hundreds of him!

A choking gasp flew from Steve Mercer's lips. He stared wildly at the hundreds of Barton Elmores that covered the valley before him. They were everywhere. Each one a perfect duplicate of the scientist!

Somewhere from the legion ranks of the simulacra came a loud laugh. "Well why don't you shoot me, Steve! I'm here right in front of you—or can't you tell?"

There was mockery in Barton Elmore's voice. It drove Steve Mercer mad with rage. Where was he? Which of the countless duplicates before him was the *real* Elmore?

There was another fluttering overhead. Again Mercer's eyes glanced up. Hundreds more of the birds swung in lazy circles over the plain about him. Then just as suddenly the birds were gone.

Mercer was almost afraid to look down. Instinctively he knew what he would find.

He was right.

There were hundreds of himself. *Perfect, exact doubles of himself!*

A hoarse cry burst from Mercer's lips. And from somewhere in the milling mass of Barton Elmores came the laugh again.

"They've found something new to amuse themselves, Steve. You and I. How does it feel to be hundreds of people all at once?"

Rage was a searing pain in Steve Mercer. His eyes blazed wildly and he swung the proton rifle in a wide arc toward the myriad Elmores.

Bolt after bolt ripped from the rifle. Searing blasts of proton energy cut into the ranks of the simulacra. Wherever the ray struck, bodies puffed into extinction only to reappear an instant later.

It was futile. He couldn't be sure where to shoot. And his weapon had no effect on the simulacra. No effect but a milling panic. The beings spread over the valley floor in all directions. And Steve Mercer knew that somewhere in those ranks of himself and Elmore was the real person he had to kill.

He sped after them. Mile after mile, hour after hour, until his body cried out for rest. Time after time he was sure he had found the real Elmore, only to see the duplicate disappear before his eyes and take shape again moments later.

And always somewhere off in the distance he heard the scientist laugh. A harsh, taunting laughter.

NIGHT closed over the planet in a slow blaze of rainbow flame as Sirius B slid down over the horizon. Steve Mercer sank wearily to the ground. He was tired, hungry, and thirsty. He remembered the rations he had brought along. His fingers fumbled with the strap over his shoulder as he loosened the small pack. The concentrated foods brought new life to his tired body, and the flask of liquid

quenched the burning fire that parched his throat.

Steve Mercer had time to think during the night. Even with the ghostly wraiths of Elmore and himself moving around in the dimness of the night. And the thought struck him that he, young, and durable, had grown tired and hungry. *What about Elmore?*

The scientist had carried nothing with him from the ship. He had no rations, no water. Nothing. And Elmore was old, nearly sixty. And he had been going for hours, lost amid the trackless maze of the simulacra. He must be dying of fatigue and hunger by now!

The rations.

Elmore would have to have food and water. Where would he get some? The ship? Steve Mercer himself didn't know where the *Voyager* was. He smiled to himself as he thought of the compass. It was a good thing he had taken it. He pulled it out from his shirt pocket and glanced at the luminous needle. It pointed unwaveringly toward the space ship somewhere off in the distance. Mercer smiled. *He* would be able to find the space ship, but Elmore wouldn't. The planet? No, Elmore wouldn't get food and water from that source he was sure.

There was water on the planet of course. But would it prove to be poisonous? Elmore wouldn't dare take a chance.

Dawn came eventually. It flooded the horizon behind Mercer in a kaleidoscopic maze of color. The valley seemed to have changed, too. The forests of simulacra were everywhere. Birds were everywhere. Animals of all description.

And infinitely more Elmores. Thousands of them. The valley was a seething mass of Elmores. Elmores and Mercers. And Steve Mercer noted the Elmores were changed too.

They were haggard, stooped, worn. Perfect doubles for the *real* Elmore, tired and miserable. Steve waited until day was bright and hot upon the world.

He moved off again, searching. There was grimness around the corners of his mouth, and deliberateness in his stalking. For he had left something behind him. He didn't glance back over his shoulder at it. It must look like he had forgotten them.

The rations. They lay on the ground in a small heap where he had left them. And Mercer knew that Barton Elmore was tired, hungry and thirsty. He would see those rations . . .

He began his stalking. He singled out Elmores from the myriad duplicates of the scientist and sent blasts from the proton rifle into their ranks. The same panic and milling of the day before began.

He wanted it that way. He wanted them to move around. He wanted to put Elmore off his guard.

He did.

Mercer was a few hundred yards away from the rations. Out of the corner of his eye he watched. Countless Elmores and duplicates of himself passed by the small heap, unnoticing.

Then one hesitated beside the food.

Mercer kept his back turned. But out of the corner of his eyes he watched. And his blood was pounding.

The Elmore was stooping cautiously beside the ration heap. Mercer trembled.

The Elmore was reaching out for the flask and food. The hand closed over the pack, picked it up.

Steve Mercer whirled, his eyes blazing in triumph. That was the real Barton Elmore—the Elmore who wanted that food and water!

He whipped the rifle to his shoulder. And at the same instant the Elmore saw him. Mercer laughed as he saw the look of horror spread over Elmore's face.

He knew he had been trapped!

Elmore started to run. Tried to mingle himself with the countless other simulacra of himself. But even as he started to run, Mercer depressed the trigger.

BOLT after bolt of death shot from the rifle. Ripped, tore, burned its way through the Barton Elmore a few hundred yards away. And as the bolts tore from the gun, Mercer was laughing, wild, hysterical laughter.

This time the Elmore didn't puff into thin air. This time blood and flesh and bones spattered over the ground. There was a single strangled cry as death tore the life from Barton Elmore's body. Then there was silence.

Mercer lowered the rifle from his shoulder, and he was trembling. His feet were uncertain as he ran toward that blasted mass on the ground. He stood over it, staring at the twisted corpse that had been Elmore. At the blasted rations he had been holding.

Mercer felt exultation flow through him. He had found him. This had been the *real* Elmore!

And he was sure of it as he glanced around. The simulacra of Barton Elmore were disappearing. Fading away into nothing.

But only for an instant.

They became blasted twisted corpses. Hundreds. Thousands. Dead Elmores. Littering the valley around him.

The exultation fled from Steve Mercer. He looked at the corpses, and a shudder ran through his frame. But then he thought of the Space Drive. It was his now. He would say that Elmore had met with an accident on an alien world. They would believe him. There was always peril in interstellar travel. And he would say that Barton Elmore had died—killed by aliens on a strange world. Money. All the money he would want. Power. All the power he would want. The plans for the Space Drive were safe inside the *Voyager*. They were his now . . .

A great weariness settled over Steve Mercer after his first wave of triumph passed. He had been hot with the desire to kill. He had killed. Now the desire was gone. He wanted to get away. Get away from those blasted, twisted corpses. Away from this planet of madness.

He looked at the compass. The needle pointed unwaveringly toward the magnetic field of the ship. He began to walk.

He walked for hours. Mile after mile. He grew hot and tired under the searing heat of Sirius B. The atmosphere seemed to close in on him like a stifling blanket. It drained him. He was thirsty.

He began to wish he had not left the water flask with the rest of the rations that had been blasted under the bolts of his proton rifle. But he thought of the ship. There was plenty of water waiting for him. And food too. He could suffer for a little longer . . .

They walked beside him. The countless hundreds of himself. And they all showed traces of fatigue he himself felt. Anger began to flow through him. It was maddening to look upon himself in a myriad duplications of every atom of his being. To see himself plod along on this alien world. To see the haunting that was in his eyes . . .

He passed through the forest. And as he passed, through tangled masses of trees and shrubbery, the forest seemed to fade before him. Trees became Steve Mercers. Bushes duplicated him. He faced himself, and the haunting that was in his eyes, the haggardness, the tired weary numbness that crept over him, was reflected in those myriad faces. His faces. Himself.

THE hours crept by. He must have traveled miles. But the needle never wavered from the compass. Any minute now.

Any minute. And then he would be free from this madness about him. He would close the door of the *Voyager* and leave this strange planet with its alien life forever behind him. He would be free!

His throat was parched. Aching. His stomach gnawed with a growing tremor of hunger. But there was food and water waiting.

And the forest thinned before him. His heart leapt. The compass needle pointed straight ahead. He caught the glint of metal shining in the sunlight. The ship!

Mercer broke into a run. His breath burned in his throat as he ran from the trees. Out into a clearing. He knew the clearing. And the glint of metal was breaking through the outer fringes of the trees.

He saw the ship.

And he stood transfixed, his knees turned to water. His lips trembling with an ague of fear and horror. And he would have cried if his eyes could have formed tears.

The *Voyager* lay out there, basking in the rays of the sun. *Hundreds of Voyagers, thousands of ships—each a perfect duplication of the ship he had landed in!*

Rage coursed through him. He screamed hysterically and threw the proton rifle to the ground. He dashed the compass on the earth and smashed it under his foot in a frenzy of anger.

The compass!

He stooped and with trembling fingers picked up the smashed bits of glass and metal. Horror flooded over him in a wave.

He had smashed the compass—the compass that would have led him unerringly to the real Voyager—the real ship with the magnetic field guiding the sensitive needle!

Steve Mercer sank to the ground. Around him, countless other Steve Mercers also sat upon the valley floor. He looked at them, saw the weariness that was in his own eyes, saw the despair that twisted his face because he had allowed a momentary passion to destroy his only means of salvation.

He looked at the thousands of ships. Somewhere among them was the *Voyager*—and with it the food and water which would mean continued survival. He had to find the real ship, he had to find it to stay alive, to escape from this insane world.

He sat there, a stifled pounding in his chest. His eyes grew wild. His lips quivered as hysterical sobs bubbled in his throat. Pangs of thirst and hunger raged and gnawed within him. It would take days—weeks to find the real *Voyager* among its thousands of counterparts.

And Steve Mercer knew, with a cold, crawling despair, that he wouldn't last that long. . . .

THE END

THE MOST SENSATIONAL THOUGHT RECORD OF ALL
RICHARD S. SHAVER'S
INVASION OF THE MICRO-MEN
The Most Thought-provoking Story in the Annals of Science Fiction
COMING IN THE BIG MARCH ISSUE

Vignettes OF FAMOUS SCIENTISTS

By ALEXANDER BLADE

Spellanzani

He was the first scientist to become interested in the basis of all life, protoplasm, and to investigate it

LAZARO SPELLANZANI was born in 1729 at Scandiano in northern Italy, and received his education at the universities of Modena and Bologna. After several years of private practice in medicine, during which he devoted much of his time to private research, he was made professor of mathematics at Modena in 1761, and later professor of natural history at Pavia where he remained for the balance of his life.

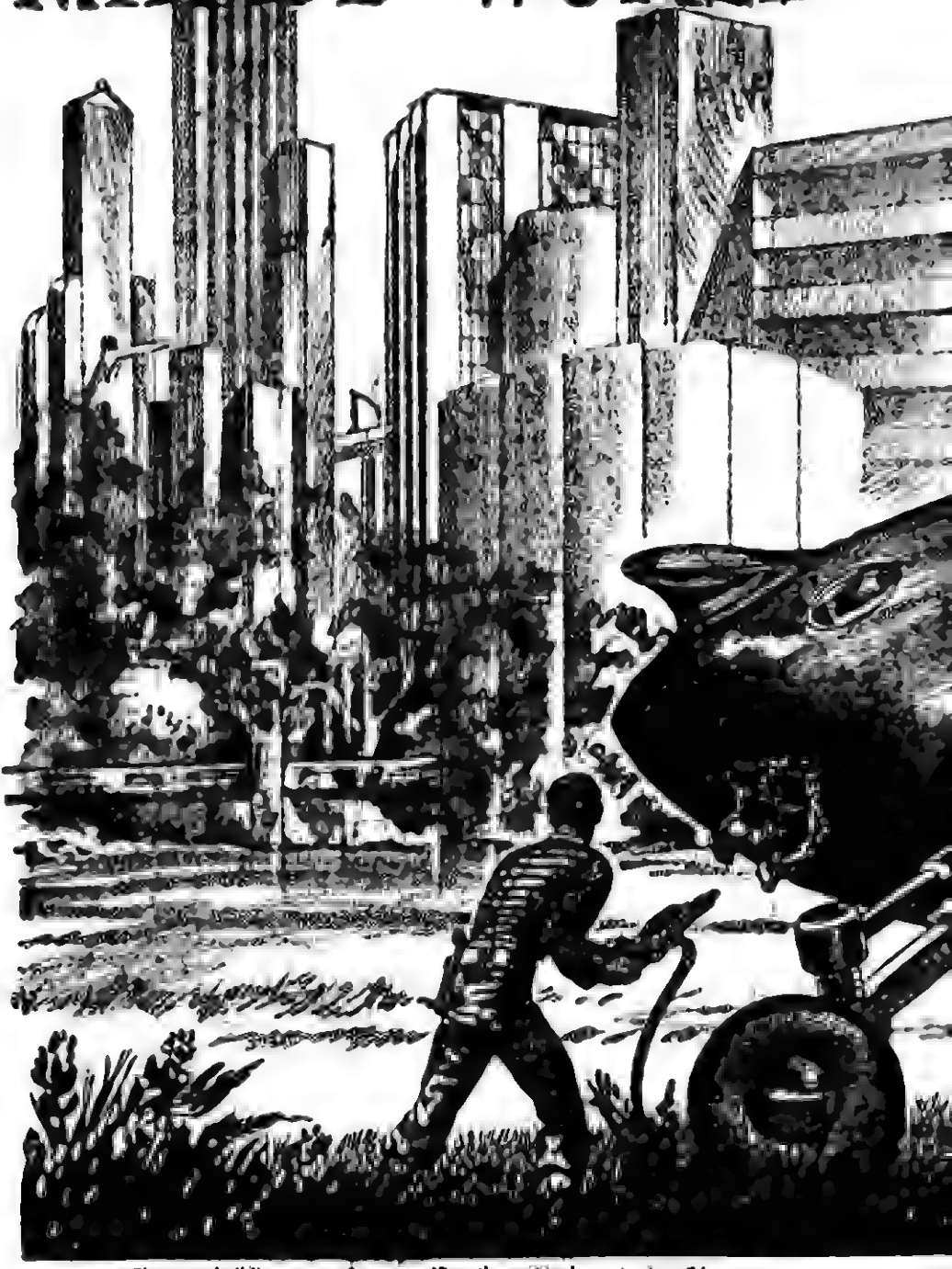
He was by inclination an experimental physiologist, and during his active years did notable work in enlarging and correcting current views on the subject of metabolism (digestion and assimilation of food), and in demonstrating the falsity of the beliefs held at the time by many in high places as to the possibility of spontaneous generation.

In regard to metabolism, the science of chemistry had not yet advanced to a point where the reactions that occur in the alimentary tract, and result in nutrition, could be thoroughly explained, nor those that take place in the lungs and cause the purification of the blood. Nevertheless, enough had by then been revealed by the anatomists, of the nature of most of the organs of the body, to permit a correct understanding of the duty performed by each, and it was his part to establish that the first step in metabolism was that of the solution of the assimilizable parts of food, effected at first by the combined action of the saliva of the mouth and the gastric juice of the stomach, and carried later to completion by the aid of solvents produced by the liver, the pancreas and the intestinal glands, by which it is finally converted into a fluid from which the intestines could extract those materials required by the body for its growth and repair. In other words, Spellanzani's investigations, while not explaining the chemical action, did much to abolish the mystery that up to then had surrounded the act of digestion, and destroyed many of the current beliefs in which ignorance and superstition had enshrouded the process.

In regard to the subject of spontaneous generation his researches cleared the path in much the same way. The doctrine that life—organized matter—could, in some mechanical or other way, be produced from inorganic or dead matter, is not only a very ancient but a most natural one, and was held almost universally until about the middle of the 17th century. Even since then it has been revived on different occasions, and by men of otherwise good standing in scientific circles. In fact, the tendency at the present time among biologists is decidedly to the effect that inasmuch as protoplasm, at some time in the remote past, must have been evolved naturally out of purely inorganic elements or compounds, in due time the chemist and physicist in collaboration, may fairly be expected to learn how to duplicate the feat. But in the day of Spellanzani, when several of the sciences were just beginning, many proofs were thought to have been produced of life arising spontaneously from infusions of vegetable or animal matter, that were thought to have been perfectly protected from external contamination.

Spellanzani was among the first to investigate this subject exhaustively. After long boiling of his infusions, instead of merely corking, he fused together the necks of the glass flasks containing them, with the result that no living organisms developed. Three quarters of a century later as additional evidence, the German chemists, Schultze and Schwann, repeated the test in a different way. After boiling their infusions, they admitted air to them, but previously passed it through red hot metal tubes. Under this treatment no life arose. Since then the matter has been tried out again and again in other ways, and invariably with negative results. So that at the present time, among biologists, the aphorism "no life without antecedent life" is held to be demonstrated, but with the reservation that some day it is not unreasonable to expect the synthesis of protoplasm to be effected.

MIRAGE WORLD



Phantom buildings, towering magnificently, suddenly, out of nothing . . .

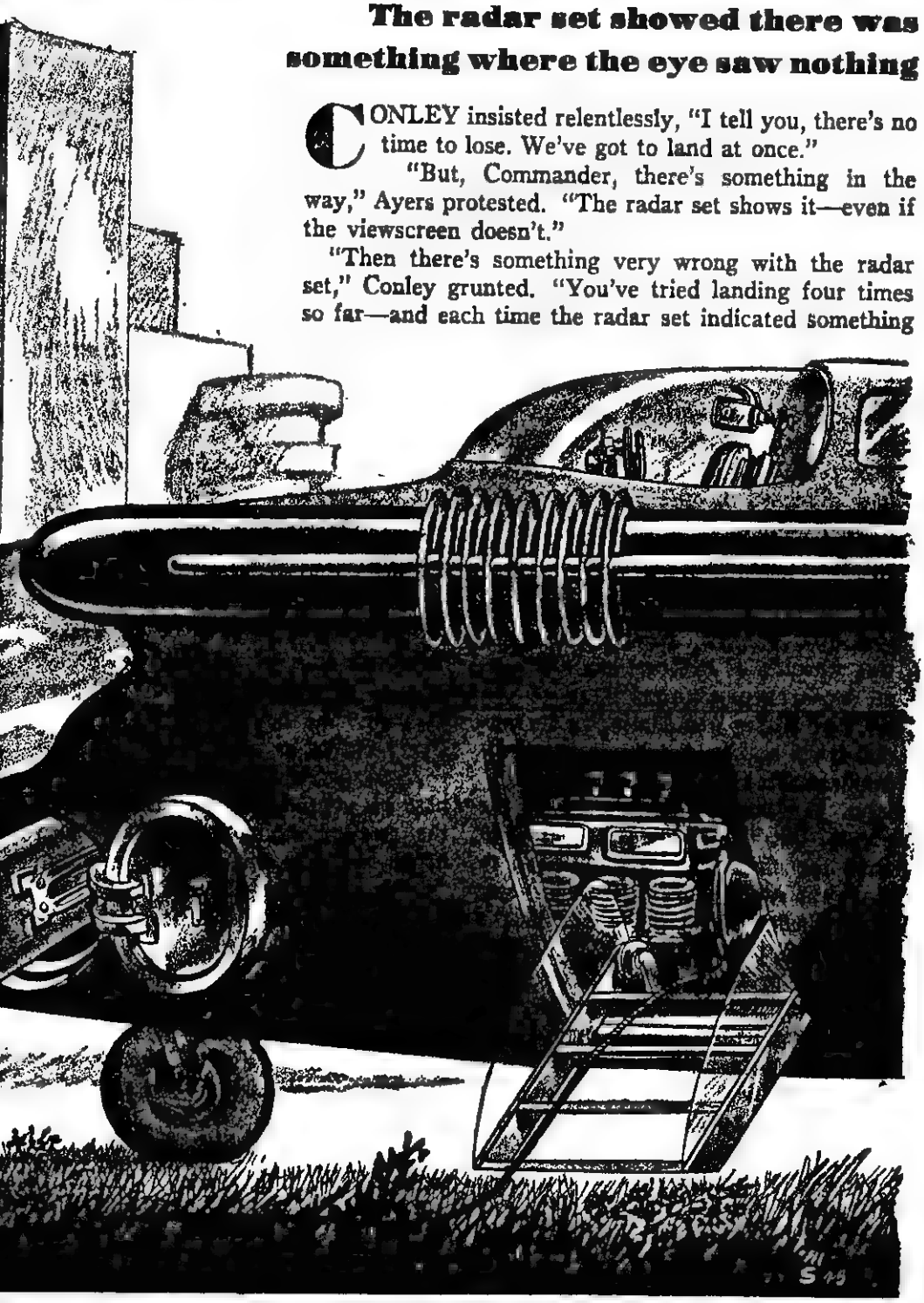
By CHESTER S. GEIER

The radar set showed there was something where the eye saw nothing

CONLEY insisted relentlessly, "I tell you, there's no time to lose. We've got to land at once."

"But, Commander, there's something in the way," Ayers protested. "The radar set shows it—even if the viewscreen doesn't."

"Then there's something very wrong with the radar set," Conley grunted. "You've tried landing four times so far—and each time the radar set indicated something



in the way. Apparently, though, there's nothing wrong with the viewscreen. It's dark out there, but I can see what seems to be level country."

Biting his lip in hesitation, Ayers leaned forward in his pilot chair, narrowed eyes probing the indistinct black and grey outlines which showed in the viewscreen. There was seemingly no obstacle in the path of the ship—yet each time he tried to land, the radar set buzzed its warning.

Conley followed the direction of Ayer's gaze and frowned in perplexity. There was something about this world, Adulonn—perhaps some freak atmospheric condition—which was raising hell with the instruments. Just a little over a half hour ago, both he and Ayers had glimpsed in the viewscreen the lighted outlines of a vast city on the surface of the planet. But when Ayers had sent the ship soaring down toward the city preliminary to landing, it had suddenly vanished. Now the radar set was warning of obstructions which to all appearances were not there.

The *Sol Star* was floating on its normal-space antigravity drive some five-hundred feet above the surface of Adulonn. It was night on this side of the planet, but there was sufficient light from the clustering stars overhead to make the surface mistily visible. From what Conley could make out in the viewscreen, there were no exceptionally tall trees or any other form of giant vegetation. The dim illumination of the stars showed the smooth expanse of a rolling prairie. There was clearly enough nothing at all at this height which would possibly be in the direct path of the ship.

Conley straightened with abrupt impatience. "We're wasting time," he told Ayers. "You know the urgency of our mission. We've got to land and find that city we sighted a short time ago."

Ayers nodded his red head slowly. "I know that, Commander, but I don't like the way the radar set is acting."

"It's probably just due to some strange condition of the atmosphere," Conley said. "Invisible low-lying semi-solid masses of moisture or gas, or something of the sort. This world is as yet unexplored, and there's no telling what weird properties it may have. The city we saw might actually have been much further away than it seemed due to some kind of atmospheric distortion. Since air masses are constantly in motion, the apparent disappearance of the city may have been due to the sudden removal of the distorting properties."

Ayers shrugged uneasily. "I still don't like it," he said. "I can't explain my feelings exactly, but when you've been piloting ships as long as I have, you get strange hunches about such things as landings and take-offs."

"Whether you like it or not makes little difference," Conley reminded crisply. "The fact remains that we have to land. We can't wait until dawn. Every second counts."

Ayers glanced at Gage, who sat behind his astronavigator's chart table at the rear of the control room. Gage lifted his slim shoulders in a shrug. "Commander Conley is in charge of the expedition, Jorg."

THE control room door opened abruptly. Randolf Tillman strode in, his square, bluff face set in lines of exasperation. "What's the matter here?" he demanded. "Why is it taking so long to land?"

Behind him, other figures came crowding into the control room. Conley's eyes passed over Stepan Osgood, Vanc Morehouse, Naeda Russell, and Dav Thurmer, chief engineer of the *Sol Star*. Conley gazed a moment at

Naeda Russell, and as her eyes met his, he saw those very special lights kindle in their warm brown depths.

Randolf Tillman repeated his questions angrily. "What's the matter? Why haven't we landed?"

Conley surveyed Tillman's richly-attired, stocky form in annoyance. He wondered again how Tillman, so lacking in tact and patience, had been appointed ambassador to Adulon by the Executive Council of the Terran Empire. It seemed to Conley that Tillman's diplomacy consisted merely of making difficult situations even more difficult.

Conley turned his thoughts to the matter at hand. He explained the odd behavior of the radar set and Ayer's reluctance to land in the dark.

Tillman frowned uncertainly. "I am fully aware, Commander, that it is imperative that we land immediately. But in view of what you have said, it might not be wise to act in haste. Every precaution must be taken so that we may return safely to Terra with a means of combatting the Plague—provided, of course, that the Adulei have a means."

The people grouped behind Tillman gave murmurs of assent. Conley noted that Naeda Russell had remained silent. In her brown eyes he saw unquestioning faith in whatever decisions he might make. It gave him renewed confidence and determination.

"We're going to land at once," Conley stated firmly. "Please return to your shock-seats until I give the all-clear signal."

Tillman shook his wiry gray head dubiously. The others merely shrugged. Muttering among themselves, they left the control room.

Conley turned to Ayers. "All right, let's get this over with. Land the ship—and ignore the radar set."

"Aye, sir." Ayers took a deep breath and hunched over the control console. His practiced hands slid deftly over various switches and keys. The *Sol Star* slid smoothly into motion, angled down toward the surface of Adulonn.

Conley watched the viewscreen, and a little of the tension of the past month began to leave him. One month of arduous travel, looping in and out of hyperspace. Going in "here" and coming out "there"—dozens of light-years away. Find your guide-stars, set your coordinates on the Drive, and go in. Then out at the end of the mapped time. Find your guide-stars all over again, set your coordinates all over again, and then in again. In and out, in and out—over and over. One month of that. One month that was one century of anxiety and apprehension, of dark, crawling fear that ate deep into your vitals like an acid.

It wasn't fear for himself or fear for Naeda or for anything close to him. It wasn't personal. It was larger than that. It was something that encompassed the entire human race.

Just three more months, Conley reminded himself for the hundredth time. Just three more months in which to find a serum or a drug—something, anything, that would stop the Plague.

The Plague. . . . In his mind's eye, Conley saw the beginning of it and the two possible endings of it—and he shuddered.

THE beginning of it had been almost two years ago when in the course of its duties Mapping Expedition 14 had stumbled upon Adulonn. The Hyperspace Drive was a wonderful thing. You went in "here" and you came out "there," dozens — even hundreds — of light-years away. But if you wanted to know where "there" was, you had to have fixed coordinates and an accurate mapped time. This so you could find a certain planetary system in the Milky

Way without landing up instead in the Pleiades. Thus the Mapping Expeditions were in effect the trail blazers of the 31st Century.

On Adulonn, Mapping Expedition 14 had found a highly advanced race of humanoid beings who called themselves the Adulei. Communication had been made possible by the fact that the Adulei possessed a high degree of telepathic ability, which enabled them to read the thoughts of the members of the mapping expedition and transmit thoughts of their own. The Adulei lived in a vast and beautiful city called Itarra. They had not yet achieved space travel, but in other scientific fields, they were closely on a par with Terran civilization.

After a short stay on Itarra, Mapping Expedition 14 had returned to Terra. Unknowingly, they brought back with them the seeds of a terrible disease. The disease did not reveal itself until over a year later—after the seeds of it had been carried to every corner of the galaxy-wide Terran Empire. Then, without warning, it blossomed suddenly into virulent, destructive life, swept through the Empire with the devouring rapacity of an atomic explosion. The Plague—there had been no time to isolate or name it—consumed human lives with catastrophic swiftness. Within three months, the race of Homo Sapiens was decimated by half. And that was only the start, for the Plague gave no indications of lessening its force. At its rate of advance, the human race had just three more months to live.

With its wealth of scientific genius, the Terran Empire might eventually discover a means of checking the Plague—but it had spread so rapidly that there had been no time for research. The only recourse had been to dispatch a relief expedition to Adulonn in the hope that the Adulei might have a serum or drug which would combat the Plague. The *Sol Star* had been chosen and placed under the command of Nels Conley. Randolf Tillman had been named ambassador to the government of the Adulei. Stepan Osgood, a famous specialist in rare diseases, had volunteered to accompany the expedition in a scientific capacity. He had taken along his two assistants, Vanc Morehouse, and Naeda Russell.

Conley thought now of the two possible endings of it. If the Adulei possessed a method of checking the plague, the human race would go on, and in time reach again its high pedestal of greatness. But if not—then the Terran race was doomed to extinction. Doomed to sleep the big sleep in eternal darkness—forever.

Conley glanced up sharply at the abrupt, warning buzz of the radar set. He saw Ayers flinch. But though pale and tense, Ayers held the *Sol Star* steady on its long slant toward the ground. In another moment, disaster struck with numbing suddenness. The ship smashed head on into something directly in its path—something the viewscreen had failed to show. There was a great crunching and grinding—and then they were falling down, down, with sickening swiftness.

Conley felt the *Sol Star* strike the earth. The shock-seats in which he and the others were sitting might have absorbed the greater force of the crash. But the normal-space antigravity drive engines had been functioning. The consequent shaking-up made them generate momentarily an excruciatingly painful vibratory field. Under the force of it, Conley and the rest were slammed into unconsciousness.

CONLEY opened his eyes, becoming aware slowly that he was stiff and sore as though from a physical beating.

Then memory of the crash came to him. He sat tensely upright in his shock-seat, gazing apprehensively about the control room.

Ayers was just coming around. At the rear of the control room, Wal Gage was huddled, still in unconsciousness, over his chart table. Conley went quickly over to Gage and shook him. To Conley's intense relief, Gage's eyelids fluttered and finally opened.

So far so good, Conley thought. But —what about the others? If any had been killed in the crash— He turned abruptly and ran to the passenger lounge.

Tillman and Morehouse were fully conscious. Morehouse kneeled beside the prone form of Naeda Russell. He was rubbing the girl's wrists briskly, while Tillman bent over the seated figure of Stepan Osgood, who was just regaining awareness.

Ignoring the others, Conley crossed swiftly to Naeda's side. A sharp anxiety made the breath catch in his throat.

"Is she . . . is—" Conley searched Morehouse's face, unable to finish the question.

Morehouse understood. He shook his head. "Naeda's all right. Being weaker physically than the rest of us, she's just slow in coming out of it."

As Conley watched, Naeda's brown eyes struggled open. Recollection came into them. She recognized Conley bending over her and smiled. He placed an arm around her shoulders, helped her to a sitting position.

"Naeda—how do you feel?" Conley asked anxiously.

The girl smiled ruefully. "As though somebody had tried to kick my ribs in. But otherwise I seem to be in one piece."

Tillman left Osgood, now awake, and strode over to Conley. He demanded, "What happened?"

"We struck something and crashed," Conley explained simply. "Whatever it was, it wasn't visible in the viewscreen."

"But the radar set gave a warning," Ayers' voice said grimly. Ayers and Gage had just entered the passenger lounge. Now Ayers approached the group about Conley. His eyes were bitterly accusing.

Tillman turned to Conley. "Is this true?"

Conley nodded slowly. "The radar set gave a warning. But it did so four times before—and each time the viewscreen showed nothing in the way. I decided the radar set was merely acting up because of some freak atmospheric condition of this planet. I was wrong —horribly wrong. We hit something solid—and apparently invisible as far as the viewscreen was concerned."

Conley turned with the others as a figure limped into the lounge. It was Dav Thurmer, a blood-stained bandage bound around his grizzled head. Thurmer's fading blue eyes reflected a despairing hopelessness.

"If you've got any ideas about saving the human race, you'd better forget them," Thurmer said bitterly and to no one in particular.

"What do you mean?" Tillman questioned.

"The engines," Thurmer answered. "The crash broke several delicate parts —and we have no replacements, not for the parts I mean, at least."

Conley grasped Thurmer's arm urgently. "But, great space, there ought to be tools and materials—"

"There are," Thurmer said. "But it'll take more than three months to make the parts we need as well as repair the damage to the ship's hull. By that time, the Plague will have wiped out the human race. So there's really nothing to do."

CONLEY gasped at the full import of Thurmer's words struck into him. He felt suddenly cold and sick.

"It's your fault! All your fault!" Tillman roared, stabbing a finger of accusation at Conley. "If you hadn't ordered Ayers to ignore the warning of the radar set, this wouldn't have happened."

"But there was nothing in the viewscreen," Conley protested. "I couldn't have known—" It was no good. Conley knew it even as the words left his lips. They were so many walls, so many posts. His disclamations might have been soundless for all the sympathy they aroused. The eyes which ringed him were hard and cold and condemning. But what hurt most was the way Naeda averted her face when he turned to her for the understanding which he was sure he'd find. Her face was frigid, a white tombstone for the dead emotions she had once held for him.

Your fault! All your fault! The words pulsed in Conley's mind like a pain. *You destroyed the last hope of the human race.*

Conley became aware of Tillman speaking. Tillman's voice was measured and grim. "Commander Conley, as ambassador to Adulonn, and therefore as a representative of the Terran Empire, I am fully qualified to make such changes in the personnel of this expedition as will be to the continued good of the Empire—the present disaster to the contrary. You have shown yourself incompetent and neglectful in the discharge of your solemn duty to the Empire and to the human race. I do therefore divest you of your command. You will henceforth serve under Chief Engineer Thurmer, and you will obey such orders as he sees fit to give. In your place as commander of the expedition, I appoint Jorg Ayers."

Tillman glanced about him. "If anyone disagrees with the change I have made, let him make his disagreement known."

Conley's eyes darted from face to face, a forlorn hope dying within him. There was no disagreement.

Tillman said, "Therefore, Jorg Ayers is in command of the expedition as of here and now. All right, Commander Ayers, what are your orders?"

Ayers looked acutely self-conscious. He moistened his lips several times, but apparently he was quite barren of orders.

Conley said, "If I may be allowed to make a few suggestions . . ."

"Go ahead, sir," Ayers assented quickly. "I mean—uh—just go ahead."

"The most important thing," Conley said, "is to find Itarra, the city of the Adulei. We glimpsed it from the air before some kind of atmospheric distortion removed it from sight, and so it should be somewhere not too far away. We have two auxiliary vessels which can be used as scout ships with a crew of two each. While these are out looking for the city, the rest of us can get to work and make such repairs on the *Sol Star* as we can. The Adulei are said to be highly telepathic in addition to having an advanced civilization, and thus it's possible that they can help us complete the remainder of the repairs from mental descriptions of the parts and materials we need."

Conley saw abrupt hope replace the leaden despair in the faces before him. His last words had been the result of a sudden thought, but he realized, with the help of the Adulei, it was still possible to save the Terran race. Even in spite of what had happened, they weren't licked yet.

Conley, Ayers, Thurmer, and Gage hastened to the auxiliary ship cradles. They lowered the two small vessels to

the ground outside. Then Conley strode to the airlock, pulled the opening lever. Mapping Expedition 14 had ascertained the air of Adulonn to be quite breathable. In fact, the data which had been gathered showed the planet to be amazingly similar to Terra in many respects.

THE outer door of the airlock slid open. Conley jumped to the ground. dimly aware that the others followed. His eyes were fastened to a scene that jolted him with astonishment. As though from far away, he heard faint gasps of surprise from the figures emerging from the airlock behind him.

It was early morning. The yellow-white sun of Adulonn was still low in its ascent above the horizon. A warming breeze brushed Conley's face and hair. But he was conscious neither of the sun nor the breeze. His incredulous gaze was fixed rigidly upon a group of strange beings who were gathered some fifty feet from the *Sol Star*. Beyond the beings showed a small village of crude huts built of skins stretched on poles.

The beings were essentially humanoid, possessed of two arms, two legs, and large, well-contoured heads. But there the resemblance to Homo Sapiens ended. These natives of Adulonn had figures that seemed excessively slender and small-boned. Their bodies were covered from head to foot with long, silky hair in a wide range of reddish hues. Their eyes were large, glistening and protuberant. Their n o s e s were small, sharp beaks with wide, flaring nostrils, their lips small and pursed as though puckered continually in a soundless whistle.

They were garbed barbarically in skins and furs. Bone ornaments hung from their necks, wrists, and ankles. In their small, prehensible hands they held crude weapons of stone.

Cold fingers of dread clutched at Conley's heart. Were these the Adulei? Where was the magnificent city which Mapping Expedition 14 reported having found? Sudden mystery, sudden wondering. Sudden despair that made an aching hollowness inside you.

Conley's eyes searched the landscape like desperate hands, but only the prairie, smooth and green and stretching into hazy distance, met his gaze. The towers and spires of a mighty city just were not there.

"Something's w r o n g ! " Tillman's voice broke the straining silence like a knife cutting a taut cord. "These people are clearly of a stone age level of development. They can't be the Adulei."

"And there's no city here," Osgood put in. "From the looks of things, there never was a city."

Tillman stiffened as though under the pressure of a sudden idea. "Say—do you suppose there has been a mistake? Could it be possible that this world is not Adulonn after all? Perhaps we reached a planet which merely resembles Adulon."

"We couldn't correct our error in that case," Thurmer said heavily. "The engines are dead."

"As astronavigator, it would be my fault," Wal Gage remarked. He shook his head. "I'm certain, however, that no mistake has been made. We followed to every last detail the charts and tables made by Mapping Expedition 14. And this world answers perfectly the data which had been gathered on Adulonn. For another planet to fit the data exactly would be like a duplication of human fingerprints."

Conley said, "If the city is actually around here somewhere, these natives should know something about it. We can try to find out."

Tillman eyed Conley with disdain

spread large across his square face. But after a moment of consideration, he bent his head in a reluctant nod. "I'll try it."

TILLMAN walked slowly toward the natives. He smiled to show friendly intentions and raised one arm, palm outward, in the universal gesture of peace. Then he pointed at the village, waved his hands outward and upward to indicate size. He stabbed a finger at the four compass points, shrugged, and looked questioningly at the natives.

Obviously, the natives understood, for they smiled, revealing wide-spaced, tiny white teeth. A few shook their heads in quite human gestures of negation.

Tillman's massive shoulders sagged. "It's clear they know of nothing larger than the village in which they live."

"Perhaps there are other villages like this one," Conley suggested. "You might try to find out about that."

Tillman turned back to the naives again. He poined at the village, then counted off the fingers of his left hand. He motioned toward the compass points and looked a question.

Again the natives smiled and shook their heads. One, garbed more ornately than the rest, and apparently a chief or leader, stepped forward. He pointed at the village and raised a triple-jointed, slender finger. Then he indicated the compass points and shook his head vigorously.

"Only one village," Tillman interpreted. The lines of his face grooved deeper under a weight of dejection. Abruptly, he threw out his hands in a gesture of anguished protest. "But if this is Adulonn, the city just has to be here!"

"Maybe it is—only the natives don't know about it," Conley decided. He turned to Ayers. "It would be a good idea to send out the auxiliary ships to scout around."

Ayers nodded quickly. "Ambassador Tillman and I will take one of the ships. Osgood and Morehouse will take the other. Can either of you pilot a ship?"

"I've run one," Morehouse responded. "I'll be able to manage."

"All right, then," Ayers said. "We'll start with the north and the east—considering the bow of the *Sol Star* as the pointing north. If I remember correctly, the city I sighted was somewhere in those general directions. Ambassador Tillman and I will take the north."

Conley watched the two vessels take off and dwindle in the blue-green sky of Adulonn. He hoped fervently that they would be successful in their quest.

Thurmer said wearily, "Well, Conley, you and Gage can help me do a little work on the ship. I don't think we'll be able to accomplish much, but it's better than just standing around. As for you, Miss Russell, I think you ought to go back into the ship. The natives seem friendly enough, but you can never tell."

Naeda nodded and flashed a smile at Thurner and Gage. Ignoring Conley entirely, she climbed gracefully into the airlock and vanished from view.

Conley sighed in resignation. The situation was thumbscrews on his heart, but it was something he had to accept. He followed Thurmer and Gage as they stepped around to the bow of the *Sol Star*. His spirits plumbed new depths of dejection as he surveyed the torn and shattered hull.

"A nice mess," Thurmer muttered. "It'll take six months to repair with the tools we have. And the human race has just three more months!"

"Your fault! All your fault!" The painful thought throbbed in Conley's

mind.

They got tools from a locker in the engine room and set to work. Conley knew it was futile even as they started. The natives watched for a while, all pop-eyed interest. But shortly they tired, and one by one, they trooped back to the village.

CONLEY was using a pneumatic hammer in an effort to close the rent in the bow when he caught his second glimpse of the city. There was a flicker before his eyes. He glanced up automatically, his labors momentarily forgotten. He saw the city. A gasp of amazement burst from his lips, for he seemed to be in the very midst of it, and mighty spires leaped and soared all about him in rainbow grandeur. Then he noticed that the great buildings were transparent, for through them he could see the rolling green expanse of the prairie. But even as he realized this, the phantom outlines of the city thinned like smoke in a breeze, and abruptly it was gone.

Conley became aware that Thurmer and Gage were staring at him in bewilderment. "I . . . I thought I saw something," Conley explained lamely. "I guess I was mistaken."

"So now you're seeing things," Thurmer observed sarcastically. "First you didn't see anything—and wrecked the ship. Now you're seeing things. I only hope it won't get us into any more trouble."

Conley tightened his lips and returned to work. He wondered if he were having hallucinations. Then he dismissed the idea. Hallucinations were the results of a deranged mind, and he was certain there was nothing wrong with his. Thinking things over, Conley decided at last that what he had seen had merely been a mirage, an illusion produced by some weird atmospheric property of Adulonn.

The auxiliary ships returned shortly before sunset. Osgood and Morehouse reached the *Sol Star* first, then came Ayers and Tillman. Both parties announced failure.

"You know, I had the queerest feeling while out searching," Osgood remarked. "For all the world as though something were guiding me—telling me where I should not go."

"What's that?" Tillman exclaimed. "Odd—but I had exactly the same sensation. I told Commander Ayers about it, and he reported having the same experience."

Ayers nodded solemnly. "It was a strange sense of detachment, as if someone else instead of myself were guiding the ship."

They stared tensely at each other. Tillman moved his heavy shoulders in a shrug. "Just another of the inexplicable things about this world. At any rate, it apparently isn't dangerous."

"Then we'll continue with our search in the morning," Ayers stated. "We covered the sector between the north and the east pretty thoroughly. In the morning we'll try again in the opposite directions. If we don't find the city—well, we'll be the last members of Homo Sapiens."

Morehouse said hesitantly, "Commander Ayers, I've been wondering if perhaps we haven't landed on the right planet but the wrong continent. Perhaps the city is located on some stretch of land on another part of the planet."

"No chance of that," Ayers answered. "Adulonn contains only one large continent. The rest is ocean, dotted with small islands. We're where the city should be, all right."

"What in the name of the galaxy *could* have happened to the city anyway?" Tillman growled puzzledly.

Naeda's slender figure appeared in

the door of the airlook. "Back at last? I've had food waiting for hours."

The men crowded eagerly into the ship. Conley followed slowly, feeling neglected and alone.

AFTER they had finished eating, Conley, Thurmer and Gage, joined by Ayers, rigged a floodlight and returned to work on the crushed-in bow of the *Sol Star*. Conley did not intend to waste any time in sleeping, and he knew the others felt the same way.

The floodlight attracted the natives, but as night deepened they returned again to the village. Conley sensed the pressure of the darkness, alien and subtly menacing. He worked doggedly, his arms aching from the continuous jolting of the pneumatic hammer. Once he noticed a movement at the door of the airlock, and he glanced up quickly in the hope it might be Naeda. But it was only Tillman, frowning, and obviously too restless to sleep. As Conley looked, he saw Tillman give a start and stare unbelievingly into the night.

"Look!" Tillman gasped. "A city!"

Conley whirled with the others. And he saw it again. From the startled sounds that broke the abrupt silence, Conley realized the others saw it, too.

The city glowed with a multitude of colors against the backdrop of darkness. They were lost in the midst of it, so many ants in a forest of great towers and spires that shone with all the gorgeous hues of a rainbow. But the city flickered and shimmered, unreal and unsubstantial. It was a ghost city materializing in the night. As they stared at it, held rigidly in the cold grip of awe the outlines of the city quivered like a candle flame in a breeze, faded, were suddenly gone. Only the darkness was left, a black monster held at bay by the white hands of the floodlight.

Tillman's voice was a stone splashing into a pool of silence. "In the name of the galaxy, what . . . what was that?"

"An illusion—a mirage," Conley said, hardly conscious that he spoke. "Ayers — Commander Ayers — and I saw it when we first arrived here. I saw it again this afternoon."

"So that was why—" Thurmer looked at Conley as though seeing him for the first time. "I thought you had gone crazy. Now I'm not so sure of my own sanity."

Conley and the others returned thoughtfully to work on the *Sol Star*. Occasionally he glanced up sharply, half expecting to see the spectral city again. But there was only the great roof of darkness, propped up by the single slender pillar of the floodlight.

Morning came with all the familiar splendor of a Terran dawn. Repair work on the ship had not slackened. Thurmer wisely had divided the work into shifts, so that each man could have frequent periods of rest. A generous use of energy-concentrates stayed any further onslaughts of exhaustion.

When the sun had risen sufficiently high, Ayers made preparations for another search party. He and Tillman manned one of the two auxiliary ships as on the preceding day. This time, however, Naeda begged to be included. Thurmer seconded her plea, claiming it would free Osgood to help in the repair work on the *Sol Star*. Ayers consented, and Naeda joined Morehouse in the second auxiliary vessel. A short time later, the two ships took off, dwindled into the blue-green sky.

Conley watched them vanish with a nagging ache inside him. He wondered if Naeda's purpose in accompanying Morehouse had been of a purely cooperative nature. After all, he thought, Morehouse was young, and

good-looking in a scholarly sort of way. During the trip to Adulonn, though, Conley could not recall Naeda having shown any other than a friendly interest in Morehouse. The girl, in fact, had spent most of her time with Conley. Her name had written itself on his heart from the very first moment of their meeting, and second only to the burning urgency of his mission had been the hope that he might add a "Mrs." before it. And it had seemed that he had excellent chances of doing so—before the crash had spoiled everything.

Conley considered his situation bitterly. By having ordered Ayers to ignore the warning of the radar set he had destroyed the last hope of humanity, lost both Naeda and his position as commander. The fact that he was not entirely to blame was of little importance. All that mattered was that it had happened.

AFTERNOON was waning when one of the two auxiliary ships returned. Its occupants were Ayers and Tillman.

Ayers' face was grooved deeply with lines of weariness. He shook his head in response to queries from Osgood, Gage, and Thurmer. "No luck," he reported. "I'm becoming convinced there never was a city here. The one we saw last night was the result of a mass delusion or something of the sort, brought on by our intense desire to find the city of the Adulei."

Tillman grunted, "I'm certain that one thing was no delusion." He looked significantly at Osgood. "Commander Ayres and I had that strange experience again. The sensation of being guided."

Ayers nodded gravely. "Wish I knew what to make of it."

Conley resumed his work, temporarily interrupted by the return of Ayers and Tillman. He glanced repeatedly at the sky. Darkness was approaching, and as yet there was no sign of Naeda and Morehouse.

Conley's worry communicated itself to the other men. They, too, began watching the sky. But when the sun finally sank behind distant hills on the horizon the remaining auxiliary ship had not put in an appearance.

Ayers voiced his fear aloud. "Hope Morehouse and the girl didn't get lost. If so, perhaps they'll see the floodlight and thus be guided back."

But though all waited anxiously through the night, Naeda and Morehouse did not return. Morning found them tense with anxiety.

"We'll have to search for Morehouse and the girl," Ayers decided. "I know the general direction in which they started out. Maybe the same thing happened to them that happened to the *Sol Star*."

Conley felt chilled. The auxiliary ships were fragile. If Naeda and Morehouse had crashed, they might be badly hurt. Conley thought of Naeda lying somewhere, crushed and broken, needing help, and concern burst out of him in abrupt speech.

"Ayers—you've got to let me go along. I know how to handle an auxiliary ship, and—"

"Trying to shirk repairs on the *Sol Star*, eh?" Thurmer growled. "Well, listen, Conley, you're responsible for wrecking the ship, and if Commander Ayers has a sense of justice he'll see that you stay here and keep working."

"I'm sure Mr. Thurmer is quite right," Tillman affirmed.

Ayers shrugged. "Guess you'll just have to stay here, Conley. Ambassador Tillman will go with me."

All Conley could feel was a dull anger, too tired to take form in words.

What fight he might have possessed was buried beneath an overwhelming weight of weariness.

Ayers and Tillman paused only long enough to load an emergency medical kit aboard the auxiliary. Then they took off.

CONLEY forced his leaden body back to work. The damaged bow of the *Sol Star* was being forced back into a semblance of its former shape. Soon they would be able to use atomic torches and fuse the shattered edges together. But Conley thought of the impaired engines, and the utter hopelessness of the situation struck into him with abrupt force. The bow had been possible of repair—but the engines needed certain specialized parts. To replace these, complicated machinery and a variety of materials were needed —things which they did not have.

The Empire—the human race—was doomed. Conley knew it as an inescapable certainty. He realized that the other men were deliberately keeping themselves blind to that fact, and he wondered how long it would be before they awoke to it.

The only break in the monotony of labor was a sudden, startled gasp from Osgood. Conley, glancing up in response caught a glimpse of the mirage city. But this time its outlines vanished so quickly that a moment later he was not too sure that he had seen it.

The natives were present about the ship that day, sitting about in groups and watching the work on the *Sol Star* with a bright interest dancing in their protuberant eyes. Conley glanced at them, wondering if they had sighted the mirage. But apparently they hadn't, for their heads were turned toward Osgood in various degrees of bewilderment.

Conley was turning back to his pneumatic hammer when a sudden thought struck him. He glanced at the natives sharply. His eyes sought and clung to a group of six at the very rear of the gathering. They were staring straight before them with a hypnotic fixity of expression, their protuberant eyes unblinking, their slender bodies immobile. Conley studied them a long moment, then shrugged, deciding that for some reason or other this particular group of natives found the work in progress on the *Sol Star* of unusual interest.

Ayers and Tillman returned just before the sun sank below the horizon. They had found no slightest trace of Naeda and Morehouse.

"We'll try again in the morning," Ayers said doggedly. "Morehouse and the girl can't just have vanished into thin air. They've got to be somewhere."

Conley was flooded with despair. Naeda, the only girl who had ever meant anything to him, lost—perhaps dead.

It was Conley's rest period, along with Gage. The intervals of rest and energy-concentrates were all that kept them going. Conley was l e a d e n, numbed with weariness. Gage was in a similar condition — even more so, Conley realized dully. Gage's eyes were filmed, his face pale and drawn. His breath came jerkily. When time came to resume work Gage was able to pull himself to his feet only with the greatest effort of will.

Conley, walking toward his post at the bow, noticed that the natives were still gathered in an attentive group before the *Sol Star*. His eyes probed among them, then narrowed. The trance-like six had not moved from the positions in which he had noticed them earlier. As he watched, he was somewhat startled to see them slowly

relax, and awareness and movement return to them.

The incident remained prominent in Conley's mind. Later, back at work, he looked at the gathered natives again. He stiffened as he saw still another group frozen in almost identical positions of transfixed rigidity. And this group, like the first, consisted of six! Conley groped for some answer to this strange behavior, but there didn't seem to be any logical explanation.

One other thing forced itself to Conley's attention. This was the extreme exhaustion of Gage. The astronavigator was working as though in a daze, fumbling clumsily with his pneumatic hammer, and occasionally shaking his head as if trying to clear a mist from before his eyes. Conley knew Gage wouldn't last much longer, and he wondered how long his own strength would hold out.

It was like a waking nightmare, Conley thought. The jolting of the pneumatic hammer against the tough, stubborn metal of the *Sol Star*. Muscles that ached and pulled with weariness. The harsh glare of the floodlights beating into your eyes. And three months . . . Three months more for the human race—then extinction. Where was Itarra, the city of the Adulei? What had happened to Naeda? Questions and wondering, and no answers, no light, anywhere. Just the jolting of the pneumatic hammer, just exhaustion that screamed a protest along every nerve.

AFTER hours that seemed like centuries to Conley, he and Gage were relieved. Conley slumped down on a stretch of grassy turf beside the *Sol Star* and stretched his aching legs. With a sound that might have been a groan or a sob, Gage collapsed beside him.

Conley popped an energy-concentrate capsule into his mouth and glanced toward the spot where he had last seen the natives. His eyes were becoming adjusted to the darkness that lay beyond the glare of the floodlight, and now, almost lost in the gloom, he could make out six quiet shapes. He could not see their faces, but he knew they were sitting very motionless, staring straight before them with hypnotic intensity.

As Conley looked, he saw a group of figures materialize from the darkness behind the six entranced natives. His body jerked into sudden alertness. The number of newcomers was six! Now the original group arose from where they had been sitting and left. The arrivals took their places, seating themselves on the grass and becoming very still.

Conley made a sharp intake of breath. For during the short interval while the original group of natives arose and the arrivals seated themselves, he had caught a glimpse of the mirage! The phantom outlines of the city had glowed briefly before his eyes, then vanished.

Conley's thoughts gyrated like leaves in a sudden wind of excitement. He sensed somehow that what he had seen was tremendously important. But just how eluded him.

He was still probing his mind for an answer when his and Gage's rest period ended. Conley climbed stiffly to his feet. Gage did not move. Conley bent down and shook the astronavigator.

"Come on, Wal," Conley prompted. "We have to get back to work."

Gage merely groaned. Alarmed, Conley dropped to his knees, searched the other's face. Gage was deathly pale and his eyes had the unnatural brightness of fever. His cheeks and forehead

were hot and damp to the touch.

"What's the matter?" It was Osgood, who had just approached. The figure of Thurmer loomed beside him.

"Something's wrong with Gage." Conley explained tensely. "He seems to be very sick."

"Sick?" Osgood kneeled beside Gage, made a swift examination. He looked up slowly, his face suddenly old.

Thurmer grasped Osgood's arm. "Great space, you look— Out with it! What's wrong with Gage?"

"He . . . he has the Plague," Osgood answered. His voice was dead.

The announcement hit Conley like a physical blow. He rocked back on his heels, horror flaming through him. The Plague! His last reserves of strength vanished beneath a sudden flooding of despair. This was the end. The end of the human race, of himself —of everything.

NEWS that the Plague had struck terminated further work on the *Sol Star*. The men slumped about in various attitudes of dejection, avoiding each other's eyes. In every mind was the same question: *Who will be next?"*

Conley was thinking furiously. How had the Plague appeared? He and the rest had been chosen for the mission because of their health. They were far from all possible sources of infection. Yet—the Plague had struck. How? How? Conley whipped his tired mind into greater activity—and suddenly he had the answer.

Conley gestured the others to him. He spoke swiftly and softly. Where there had been desair there was abrupt hope. Where there had been death, there now was life.

Conley and Thurmer disappeared into the *Sol Star*. A quarter of an hour later, they emerged, separated in the night, crept stealthily toward a certain spot where six shapes sat in rigid silence.

Conley held a compact cylindrical object. It was a fire extinguisher, part of the regulation equipment of all space vessels. Thurmer had one also. He and Conley had made a change in the chemical contents of the devices which now rendered them capable of releasing a gas that instead of smothering a fire produced swift unconsciousness.

Conley and Thurmer reached the six motionless natives. But before they could get their crude gas guns into play, two of the natives suddenly stood erect! A moment later the other four also rose.

Conley sighed in defeat, let the gas cylinder slip from his hands. Then to his utter amazement the six natives confronting Thurmer and himself smiled.

"You have discovered our ruse. We are glad."

No audible sound had been made. The words seemed to form themselves in Conley's mind.

One of the natives stepped forward. His expression was unmistakably one of friendliness.

"My name is Garron," he said telepathically. "Thulann and I were aware of your approach, as our minds had been attuned to yours in order to maintain the illusion. Realizing that you had discovered our trick, we decided to end it."

Thulann also stepped forward. His thoughts reached out to Conley warmly.

"We are indeed happy that you finally learned we had been keeping you under an illusion. We are, of course, the Adulei, and our city, Itarra, had been here all the time. Behold!"

As one, Conley and Thurmer whirled. And the city of the Adulei flowered and flamed around them. Great towers and spires leaped and soared into the brightening sky. There were broad

streets and avenues, and the ground beneath their feet was no longer the illusion of grassy turf but a smooth, glass-like pavement. Now Conley saw that the *Sol Star* was enclosed in a roped-off area many yards square. There was a litter of rubble and masonry at the base of one of the towers, and glancing up, Conley saw that the building had been damaged.

"So that was what the ship hit!" Conley exclaimed. "The radar set warned of it in the way, but I could see nothing in the viewscreen."

"We hid the city from you by telepathic control of your minds." Garron said. "We might have prevented the crash by guiding you, but at the time, we did not have the precise control of your minds necessary. It was only later when your companions set out in what you call the auxiliary ships that we were able to guide you so that you would not strike any of the buildings. I believe your companions were aware of it."

Conley nodded. "They remarked upon having had the strange sensation of being guided. But why did you wish to hide from the city from us?"

"Because we doubted the intentions of your race," Garron replied. "A vessel landed on our world before yours—yes, Mapping Expedition 14. Your race possessed extraplanetary travel, and in addition had built a great galactic empire. We feared being conquered, made subjects of an alien people. We knew that members of your race would now visit our world again, and we decided to prepare for them in our own way. We did not possess deadly weapons of force, but we did have what among your people is considered an unusual telepathic ability. A small group of Adulei were organized and trained so that when members of your race came again we would be able to keep them under the illusion that Adulonn was populated only by savages. Thus we hoped to discourage you from ever visiting our world again."

BY NOW, Tillman, Ayers and Osgood had approached. Conley introduced them to the Adulei, and Thurmer began tersely to explain what had happened.

Garron asked Conley, "May I inquire as to how you discovered you were being kept under an illusion?"

"It was when I noticed that six of your people were constantly in what seemed a strange trance," Conley said. "These six were always being relieved by another six, and during the interval while the change took place, there appeared what we thought was the mirage of a city. Then I realized that there were six of us here—Tillman, Osgood, Ayers, Gage, Thurmer, and myself. And there were six natives watching us. I tried to find an answer as to what it could mean. I thought of the mirage which appeared during the change-over—and suddenly I had it. The answer was simply each of the six of your people had each of the six of mine in a sort of hypnotic control which prevented them from being aware of the city in the slightest way. But when your people changed places, this control was temporarily relaxed, and hence we caught a momentary glimpse of the city. When I discovered this, I made a plan to render unconscious the six then watching us—but you became aware of what we were up to."

Garron smiled. "You forced our hand. And in doing so, you saved your race."

"Saved my race. . . . Conley echoed. "Why, what do you mean?"

Garron explained, "When we learned

the purpose of the second visit of your people to Adulonn—to obtain a means of fighting what you call the Plague—we were sympathetic and wished to help. But we were opposed in this by the faction which regarded your race as a menace to our freedom. Thus two factions arose—one which wished to help your people, and the other which refused. A compromise was reached. If your race was sufficiently intelligent to discover the ruse whereby we were hiding Itarra from you, then you could h a v e o u r cooperation." Garron chuckled. "And we gave you every chance, I assure you. It was no coincidence the six of us sat where you could see us. Anyway, you discovered our trick, and thus you have won our help."

"But do you have some means of checking the Plague?" Conley asked.

Garron nodded. "What you call the Plague has long been a common malady among us. We have perfected a drug called *Nyalin* which stops it almost instantly. Also—we have the tools and materials necessary to help you repair your space vessel. Just furnish us with the specifications, and our engineers will set to work immediately."

CONLEY swayed, suddenly weak with an overwhelming joy and relief. Tillman, Ayers, Thurmer and Osgood crowded around him jubilantly. They slapped his shoulders and pumped his hands until Conley's aching body seemed ready to come apart.

"I'm making you commander again," Tillman announced. "You've proved yourself worthy of the position."

"And I'm glad just to be a plain, ordinary pilot again," Ayers said. "Being commander is one hell of a big headache."

Thurmer was not to be excluded. "Sorry I drove you the way I did," he told Conley. "I was pretty bitter about having the ship damaged, that's all."

Conley grinned. Then he sobered. There was only one thing necessary to make his happiness complete, and that was Naeda. He turned to Garron in sudden inspiration.

"There was a girl and a man. They disappeared while searching for Itarra. Is there a chance—is it possible that you know what happened to them?"

"Yes," Garron said. "You see, before the two opposing factions here in Itarra could reach a compromise, the one which feared your race would deprive us of our freedom had to be satisfied that such would not occur. Accordingly, we decided to examine the minds of two members of your people thoroughly. The girl a n d the man with her were most convenient, and so we simply increased our control of their minds, forced them to land at a certain spot in the city. The examination showed your race to be friendly a n d well-intentioned, a n d jealous enough of their own freedom not to deprive another race of it. The girl and the man have not been harmed. They will be returned as soon as possible."

"When you return the girl, will you please make sure that none of the Adulei are throwing their mental weight around?" Conley asked Garron. "Kissing an illusion is no fun!"

THE END

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TELEPATHY'S RADIO

By JOHN McCABE MOORE

The mysterious gland that may be Man's newest sense!

EVERY human being possesses a mighty miniature radio, imbedded in the brain. It is, in fact, more wonderful than any radio, for it is capable of receiving more than words or visual images. Smell, taste, heat, cold, dampness, dryness and pain and the many combinations of them which constitute sensory experience not to mention joy, sorrow and the million other powerful moods, are all received by it. It is the very tiny, much overlooked and much misunderstood pineal body.

When it mentions the pineal at all, most medical literature does so in passing, stating that the function of the pineal is not understood. There have been sporadic attempts to establish that the pineal is one of the ductless endocrine glands, but proof for this is altogether lacking.

Physiology says the pineal is well supplied with blood, contains calcareous particles (once called 'brain sand') and retinal (receiving) cells like those of the eye. Biology has called pineal 'an out-moded eye' (see Webster). Just how far from the truth its description as 'out-moded' is, and how much more its function involves than visual perception, will be presently seen.

Advanced men of all ages have said this group of specialized cells is the organ of reception for all extra-sensory experience, whether telepathy, clairvoyance, true visions, prophetic dreams or premonitions. Some of the strongest supporters of this great truth are famous medical men, living today. The name of one of these has been on the lips of every thinking American at some time in the past ten years. For the same security reasons that they have painfully learned to respect, it is not discreet to mention their names. But the truth itself cannot be steam-rollered.

The pineal body is a group of cells the size of a rice grain, attached to the roof of the space in the brain called the third ventricle. It is more distended in children and in women than in men, and is probably so in order to facilitate mother to child communication in such conditions as man met in the primitive jungle days, when danger was often sudden and great and race preservation was difficult. The 'intuition' of women and the phantasies of the child mind are doubtless owing to extra-active pineals in most cases. The structure is not altogether complete until after puberty, during which it requires more than the usual amounts of iron, phosphates and calcium in the maturing process.

The calcareous particles of the pineal function somewhat the same as the crystal of a simple radio. Their action is much more complex, but they detect mental impulses from other brains. Amplification is effected by energy gathered from the blood and spinal fluid.

The wavelengths detected by the pineal are so great that they have not been measured as yet. The greatest experimental psychologist working on the phenomena of telepathy during the last ten years has had to content himself with noting the fact that there is telepathic transfer. He thinks the waves may be identical with gravitation waves, whose length is impossible even to guess, and whose speed he believes may be fifty-millioin times that of light. Evidence not quoted here, however, indicates that the so-called 'wavelength' is in the magnetic range beyond the Hertzian waves employed in wireless telegraphy, and is not as great as the 'wavelength' of gravitation. It is possible to calculate roughly, by formulas long in use, the actual wavelength received by the pineal.

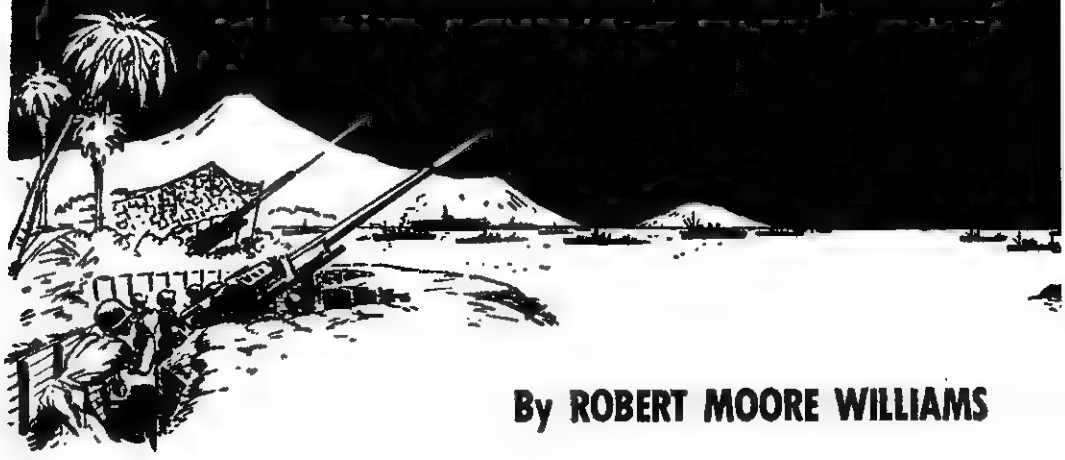
The pineal body is not surpassed in sensitivity by any other tissue in the body or the brain of man, or by any known detection device. If a surgeon touches this tissue in the course of an operation, death is instantaneous. Although there is no obvious connection between the pineal and the body processes, its communication with all brain cells including the involuntary heart and breathing center is so intimate that the slightest touch of a foreign body disrupts the flow of all nerve energy completely. There is thus good reason for its position of protection at the center of the brain.

It has been shown by physics that every atom or molecule of substance gives off wavelengths characteristic of the kind of atom or molecule it is. It has also shown that these wavelengths are those most readily absorbed by the atoms or molecules of the type which gave them off. From these laws derives the fact that pineal tissue absorbs its own vibration rates, those in the realm of thought being characterized by the vibration rates of compounds (certain compounds) of iron calcium and phosphorous. The beam which results between two minds when conditions are most favorable to telepathic phenomena is like a tight beam of radio energy, and has been called the astral tube by many mystics, both ancient and modern.

Speaking in the radio sense modulations can be made in the astral tube so as to carry the impress of any and all human experiences.

In January, 1945, the Reader's Digest carried a story (written about a loved brother who was already dead) concerning telepathy between man and the horse. A later paper is to be written dealing with conditions which allow inter-man communication, and those favoring inter-animal telpathy, as well as the occasional extra-sensory perception between man and the animals.

THE MIRACLE OF



By ROBERT MOORE WILLIAMS

Something happened on this Pacific Isle that could only be called a miracle—but what it really was, Bulldozer Mike didn't want to say

In the old days reports of miracles were frequent. Men saw visions, heard voices; their experiences became a part of the legends of the race. In the twentieth century, against the background of growing skepticism and of scientific insistence on controlled laboratory conditions, the reports were rarely heard. But it may be that the miracles were happening just the same. Certainly the great mass of the people were as hungry for them as ever; but when they happened, it was only the strong-minded reporter who was willing to tell what he had seen, who was willing to face the cynicism of his fellows.

It may be, indeed, that miracles happen. The men of our fighting forces have some strange tales to tell, tales of events that happen here but seem to have their roots in other worlds, in other universes. Those who fight under the sea and on it, the weary foot soldier, have their stories; but it is the men who fly the ships of the air, who service them, who build their landing fields from frozen northern tundras to steaming tropic islands, it is these men who somehow seem to have seen the most. Like Red Dog Billy Shearon whose Helldiver leaped over the barriers of his flight deck with a great bound and settled down quickly over the bow of the ship. For a mile or so the plane struggled along through the wave tops. Red Dog knew he was finished; so he made a little saluting gesture to the sky and said, "Okay, J.C., you better take 'er."

Somehow, after a couple of miles, the plane picked up a few feet and Red Dog dared to hope. He saluted again, finally, and said, "Okay, J.C., I'll take her now." He lifted the plane up.

Mike leaped from his dangerous perch on the bulldozer.

Then there is the story of a pilot who saw a light blinking over the water where, he was convinced, a fellow fighter pilot who had been shot down by Zeros was adrift. Circling that spot, he finally was able to communicate with a PT boat, which came in and found the injured pilot in a rubber boat. The PT crew, however, didn't see any light. The injured pilot, recovering, told how he had managed to climb into his rubber boat, and prayed, because—"I had no flashlight, no way to signal."

It may be that these are miracles. It may be that these events, and others like them, have their roots in other worlds, in other universes, that we see only part of them. If we could see all the stories, see the roots that are in other worlds, it may be we could understand them better.

That is as it may be. Down on one of the hot islands of the South Pacific, I met Bulldozer Mike, a great, stalwart hulk of a man. He was old when I first saw him, older, I think, than I ever guessed. He was a strange man and he did strange things; strange events happened when he was near.

I am a cynic. I believe nothing. Hence I believe anything. But I do not know what to believe about Bulldozer Mike. Here is the story:

* * *

"MITSUBISHI!" one of the Seabees yelled.

The plane, a Jap twin-engined bomber probably converted for long range scouting, was a gnat-sized dot against a cloud in the far distance. The yell when it was spotted brought a flurry of activity among the men sweating out the construction of this new landing strip.

The shovel gang dropped their tools and dived into the jungle where they were hastily joined by the group that had been laying the steel landing maps. One lone jeep, caught out in the middle of the field, high-tailed like a scared lizard for the protection of the trees. Around the edges of the field the snouts of the fifties and of the American adaptation of the Bofors gun began to poke through their masks of camouflage as the gun crews dropped their tools and hurried to their weapons.

We didn't have much antiaircraft; a few fifties and a couple of light cannon. Not near enough, if the Japs ever spotted this new field.

All of us were hoping the little sons wouldn't spot it until we had gotten far enough along to move in protective fighter planes. Once we got the Thunderbolts and the 38's there, we would send around a note telling the Nippos we were home and ready to receive them any day they would like to visit us, just any day; but until we got the planes we were not in the best of all possible spots in the best of all possible worlds. Not by a few hundred dead men.

I watched the dot in the sky and held my breath. The plane would pass to the south of us. The odds were the Jappo would never spot us unless he saw something moving. Then I realized the bull-throated clatter coming from the middle of the field had never stopped.

"Damn that deaf bum to hell and gone!"

The bulldozer was going great guns. Kicking up a cloud of dust ahead of the broad blade, it was really moving dirt. Great things, these dozers, but about as invisible as a bull elephant. I ran out into the landing strip.

"Mike! Get this damned dozer out of sight, but fast!"

Because I was standing right in front of the machine, he stopped the dozer. A

great hulking figure of a man, with fierce black eyes, a hooked nose, and a baby-pink face that looked as if it had once sported a heavy white beard, he glared down at me.

"And will the lieutenant git the hell out o' the way! There's work to be done here and little enough time to do it in."

Clank! Shoving the dozer in gear, he started toward me. When there was work to be done, Mike was never one to stand on formalities. Nor did he consider that lieutenants, or colonels or generals, for that matter, were privileged to tell him what to do when he was on the job. If I hadn't ducked to one side, he would have run right over me.

"Mike!"

Acting as if he didn't hear me, he shoved the dozer ahead.

I put a .45 caliber slug within a foot of his head. He heard that. It also got action. Almost falling off his seat, he whirled around to stare at me. As he turned his hand was dropping lightning fast toward the knife in the scabbard at his belt. For a second I thought he was going to draw that knife and come at me. He restrained the impulse.

"Lieutenant—"

I shoved the gun back into its holster.

"There's a Jap plane scouting this island. Get that damned dozer out of sight."

"A Jappo?" He seemed astonished. "Why in the hell didn't you say so? Where is he?"

"There!"

The plane had turned. It was coming straight toward us. The pilot had spotted the field. There was no chance he would miss seeing that hulking bulldozer.

"Hit the dirt, Mike," I yelled over my shoulder.

I DIDN'T wait to see if he obeyed. I was in charge of the antiaircraft and my duty was with the crews, to make certain they didn't miss that plane when it came over.

"Commence firing!"

The fifties and the two Bofors opened up. Hot lead and flaming steel, tracers, incendiaries, and AP slugs went screaming through the sky, reaching toward that plane. I held my breath.

We had to get that plane! If it got away, the Japs would be out looking for us, in force. They wouldn't stand hitched while we slipped into islands they regarded as their own and built a secret landing strip.

The plane veered, lurching, when the flak started. Hope leaped in my heart. It had been hit. Then I realized the pilot was taking evasive action. It hadn't been hit.

It was escaping, getting away. The probing fingers of tracer bullets were reaching for it but they weren't hitting it. The cannon were firing as fast as their crew could work them. The plane was getting farther away every second.

One of the cannon stopped firing. Jammed! "Why did that damned gun have to jam now?"

Then I saw the gun hadn't jammed. The crew seemed to be flying away from the gun. Superman had appeared among them. Superman was tossing my crew away from the gun like some husky stevedore tossing bundles of rags out of a shipping sling.

"What the hell—"

I recognized Superman. It was Bulldozer Mike.

"What the hell is that damned fool doing now?"

Kicking the crew out of the way, he swung the gun around, trained it on the rapidly vanishing plane.

Crack!

Flame leaped from the muzzle. The

concussion jarred the island. Mike looked up over the sights of the gun.

Seconds ticked away. The plane continued on its course. Suddenly flame blossomed from it. It spun like a leaf, went out of control, exploded in mid-air. Bits of debris, a tail surface, a wing, whirled groundward.

Silence gripped the island. The gun crews, well trained and expert every man of them, who had fired hundreds of shots at this plane, shots that missed, were still. They hadn't had time, yet, to think about what had happened. They were bewildered, maybe a little scared. Then the cheers began, grew to a roaring volume of sound.

Old Mike, looking neither to the right nor the left, completely unconscious of the men who were cheering themselves hoarse for him, stalked away from the gun, walked out on the field, climbed back on the seat of the bulldozer.

"Work to be done, Lieutenant; work to be done."

Clank! Shoving the dozer into gear, he began moving dirt.

EVEN among the Seabees, who daily accomplish miracles in the way of hard work, Mike was a marvel. He started long before dawn and quit well after dark, the hardest worker of all that hard-bitten, hard-driven, and hard-driving outfit. Of course everybody worked, the major, the captain, and all the lieutenants. When you're building an air field under the noses of the Nips, a pinch bar in your hands wins you a lot more respect and gets your orders obeyed faster than all the bars on your shoulder. Mike's favorite tool was the bulldozer.

"If only we had had these things when we were building—" he remarked once.

"When you were building what, Mike?" I asked him.

He didn't answer. Afterward I wondered what he had helped build, on what job he had needed dozers and hadn't had them, on what work of Titans he had needed machines to move dirt.

He worked like the devil was driving him. For that matter, the devil was driving all of us. From the tip of the highest spot on the island, you could look out across the Pacific in any direction and see miles of blue water, peaceful and serene under the sun. Water broken by coral islands, the atolls of the south seas, blue water breaking in white foam on beaches of coral sand. Paradise. And peace. Only it wasn't peaceful. Down below those horizons tremendous pressures were building up. Off in one direction, somewhere in those blue infinities of water, Admiral Nimitz had his task forces, his Fifth fleet, his lightning and his thunder, his bolts of wrath. He had a score to pay, he and the men under him, Pearl Harbor, Bataan, the Java Sea where the Houston went down.

Off in the other direction, skulking among the islands, was a Jap fleet. In Tokyo the war lords were trying to decide whether to lose their islands one by one, and save their fleet for a while, save it to fight a losing battle later on, or to risk it, out here among the islands, and with the favor of the gods—with luck on their side—to take the chance of knocking off a sizeable chunk of the American fleet. The war lords of Tokyo had no easy decision to make. To win, even to win a stalemate, they had to catch the Yanks in a trap, they had to have the favor of the gods, or maybe of Satan, on their side.

No doubt the little yellow devils lost a lot of sleep trying to make up their minds. They knew that pressures were moving through the broad Pacific, cyclones were building up.

Mike, on his bulldozer, seemed to be trying to beat the pressures, to get this field finished ahead of the deadline. Nobody knew when the deadline was, of course, but Mike seemed to know. As he worked he watched the sky and once or twice I caught him sniffing the wind as if he smelled trouble. The high commands of this world, with their talk of D-days and H-hours, have never yet succeeded in fooling a single old soldier about an attack. When the day comes, the old soldiers know. They smell it in the wind or feel it in their bones or detect it with some higher sense. *This is the day.* They know. And when I saw Mike sniffing the wind and watching the sky, I knew what he was feeling for. *The* day.

Then came the day when I found somebody else on the dozer. Hunting around, I found Mike. He was sitting under a palm tree, out behind the tents at the edge of the jungle, sharpening his knife. He had a razor hone on his knee. Spitting on it, he ran the edge of the blade along the stone, tested the edge on a calloused thumb.

It was a strange knife, edged on one side, with a slight curve at the point.

"Good-looking knife, Mike. Mind if I see it?"

FOR an instant he looked me over, weighed me, measured me, then silently extended the knife. The blade was beautiful. Made of fine-grained, tough steel, it sang when tapped with a finger nail. The sides of the blade were covered with a fine scroll of ornamental figures that looked like writing of some kind. Age and many honings had fined down the ornamentations. Examining the handle, I whistled. It was made of solid ivory, inlaid with delicately wrought figures of yellow gold.

"Gold! Holy cats, Mike, where did you get a knife like this?"

He seemed to search his memory for an answer. "Damascus, I believe it was. Jerusalem, maybe. . . . No, it was Damascus. A little metal working shop on a side street—"

"Damascus!"

"Yep." He caught my eye and suddenly fumbled for an explanation. "I was near there on a digging job, once. Went into town with some of the boys one night after work. Picked it up then."

"Hm. I didn't know knives like this were still being made. I thought those old Damascus steel workers had all died long ago, that the secrets of their art had died with them."

They had been famous once, those steel workers of Damascus, long ago. Men who needed swords of fine steel, body armor, and knives, had gone to them, and all over the Mediterranean area their wares had been sought by those who could afford to pay their prices.

"This man seemed to know how to make knives," Mike answered.

He held out his hand for the blade, hastily resumed his interrupted honing. I watched him, minded to ask questions, but he had retired into himself.

Later, just before dusk, I was out in the jungle checking the sentry positions. I saw him again. Standing about twenty feet from a big tree, he was throwing the knife at the trunk. It zipped through the air, slapped into the trunk of the tree, the blade singing as it hit. He snapped his fingers, the knife seemed to jerk itself out of the tree and fly back to his fingers, and he threw it again.

While I watched, he must have repeated the performance a dozen times. He didn't miss once.

That night the Japs attacked us.

AN M1 cracked in the dark jungle to the north. It was instantly answered by a spiteful pop. You only have to hear that *pop* once to remember it forever. A Jap .25 caliber rifle! It was followed by the fast brp-brp-brp-brp of one of their light caliber machine guns. Then the yelling started.

" 'Mericans no damn good."

"Damned cowards."

"Run, Yanks!"

The Japs seem to think that a big noise will scare the Yanks. Consequently they make a big noise. They usually succeed in their efforts, but they soon discover there is a big difference between scaring a Yank and making him run. The dog-face scares easily enough but he doesn't run worth a damn.

The G.I. Joes out there didn't run this time but in a few minutes, so great was the volume of fire that began to pour from the surrounding jungle, it began to look as if they might die where they stood. All of us. I don't know where the Japs came from —probably a couple of destroyers had slipped in and landed them at night— but compared to the number of men we had, they were certainly here in force. The major in charge of our whole outfit began to look worried.

"How many of the little yellow devils do you suppose are out there?"

"Shall I take a patrol and go find out?"

He shook his head. From the noise they were making, they sounded like thousands. I don't know how they learned we were here. Possibly the bomber Mike had shot down had had time to radio our location. Maybe another plane had passed over so high we hadn't noticed it. *How* they had located us didn't much matter. They were here.

I was with the anti-aircraft crews, getting the guns trained to cover the approaches to the field, warning the men not to shoot while our outposts were being pulled in. The major was putting his men into position to defend the field. The Seabees had fallen in with the regular troops.

It was pitch dark.

The volleys of fire were moving closer to us as our outposts were pulled in toward our main defenses. Men crouched behind barricades, fingers on the triggers of their pieces, staring nervously into the bedlam. Bullets seared through the darkness, whanged into tree trunks, bounced with burping whines through the leaves. Jap mortars started up, we threw ourselves flat on the ground. The mortar fire soon stopped.

"I don't like it," a grizzled sergeant whispered.

I hadn't liked the mortar fire at all. I liked its stopping less. The Japs were preparing to charge. They had stopped using the mortars to keep their own troops from running into their own exploding shells.

Our own men from the outposts came stumbling back to us, mumbled the countersign, slipped into our lines. We sat there in horrible darkness and waited. The Japs had stopped yelling. No more shots were being fired.

The silence was worse than the noise had been. They were regrouping, moving into position for a final charge. We waited. A Jap yelled.

"Here they come!" I thought.

THE yell was the signal for the final charge! Even as the words passed through my mind, I knew I was wrong. The yell didn't sound like an order to charge. It sounded like it had come from a scared man. A Jap who had suddenly found something he hadn't expected would yell like that, yell in

fright and dismay. The shriek was choked off.

I knew, then, what had happened. Somebody out there in the darkness had got himself a Jap. He had used a club or a knife or the butt of a gun to do the job.

The Jap had stumbled on to a wounded Yank or on to one lying doggo and had got himself bunted back to his ancestors.

One more dead Nip! But there were others, too many to count, out there in the darkness.

Another Jap yelled. The scream was choked abruptly into silence. Around me I could hear men listening, wondering. What the hell was happening out there?

Silence held the jungle. The silence was—not right. I can't tell you how I knew the silence was not right. You learn, eventually, in a combat area when the silence is right and when it is wrong. You feel it in your bones. You learn to tell the difference between a normal stillness and a silence that is caused by something that has happened or is about to happen.

In this case, something had happened; something else was about to happen.

It happened.

A small caliber Jap machine gun—one of those vicious little weapons that shoots so fast you can't distinguish the individual shots—let go. Again I thought the attack had started. Again I knew I was wrong. The Jap on that gun wasn't shooting in our direction. He was aiming the other way, firing at something behind him in the jungle.

The gun stopped shooting. Stopped suddenly.

The silence was so heavy you could feel it. I began to sense movement in the green tangle. Uneasy movement.

"Something out there," the sergeant whispered.

"Yeah. I know."

"Shall I tell the boys to open up?"

"Wait."

The movements continued. Snipers, stalking their prey through the underbrush, might make sounds like these.

Another scream ripped the night. This time the Jap who was doing the screaming didn't stop suddenly. He was tearing his guts out with those yells. As he screamed, he ran. We could hear him crashing through the thickets, stumbling, falling, getting up, screaming and running. The screams died out in gurgling sobs. Excited jabbering followed. We waited. Out there in that green tangle was—uneasiness. A Jap rifle spat flame. Again the gun was not aimed at us but at something we could not see.

"There's something out there!" the sergeant insisted.

The Japs knew it too. Another rifle crashed, then another, and another, until the jungle was hot with sound. Not a bullet was aimed at us.

The Japs seemed to go crazy. They forgot all about us. In a dozen different places they began yelling. And running. We could hear them crashing through the trees.

They were running in any direction. A few came toward us, and got themselves killed for their carelessness. For a long time we could hear them running. Then we could hear them no longer. The jungle was silent.

WE WAITED. We were still waiting when the first streaks of dawn lit the sky. I took a patrol with me, and went out.

We found a few dead Japs. All of them were officers. One was the colonel who must have been in command of the expedition. There were several lieutenants. All of them had been

stabbed. The colonel had got his in the stomach. We guessed he was the one we had heard running as he screamed.

Somebody, with uncanny ability to choose in the dark, had killed the Jap officers. Without their officers, the Japs are not worth a damn at anything. When their officers had been killed, they had gone into a panic.

We stood there in the dawn, over the body of the Jap colonel, awed, scared, wondering. What had happened out here during the dark hours? Cold winds blew up my back.

Behind us, on the landing strip, a roar started. The bulldozer. I went down there.

Mike was on the seat of the machine. Leaning over and watching the edge of the blade, he was moving dirt. I walked up, motioned him to stop.

The knife, in its scabbard at his side, was plainly visible. The ivory handle was streaked with red.

I knew, then, what had happened.

"Mike—"

He fixed me with his eyes. There was the look of an eagle about him, of a fierce old war eagle.

He spoke slowly, never taking his eyes off me. "Sometimes, Lieutenant, it is well not to ask questions. Sometimes it is best just to know what we know and not to talk about it."

He knew what I knew. Lord, I was scared! I faced his gaze. He looked me right in the eye. He wasn't trying to browbeat me, to out-stare me. He was just making certain that I understood what he meant.

He spread his hands in a little gesture. "Sometimes, Lieutenant, there is a great deal of wisdom in not knowing too much, in not asking too much. Because, if we ask too many questions, some day somebody may answer them for us, and we may find the answers blasted hard to digest. . Now if the Lieutenant will—"

He was so damned polite about it! Just like the colonel when the colonel doesn't want to talk. I knew what he wanted me to do. I stepped aside. He shoved the dozer into gear.

I watched him cross the field, a husky, fierce old man, working like a fool, moving dirt. Moving dirt to build a runway. Building a runway so that planes might fly. And because planes flew, something else would happen. And because something else happened, still a third factor would slip into place in some supernal equation somewhere. And that in turn would enable a fourth factor to slip into position.

Miracles have their roots in other worlds, in other universes. . . .

In all my life I do not believe I have ever been so scared as I was in that hot dawn, watching old Mike ride that bulldozer across that unfinished landing strip.

PRESSURES continued to build up in the vast ocean area surrounding us. The Japs who had attacked us were dispersed, hiding in the jungle, not bothering us. But there were other Japs out there in that vast expanse of waters. Somewhere there was a Jap fleet.

Before the air strip was finished, cargo planes were delivering gas, bombs, oil. We got a squadron of fighters, Thunderbolts. We got five B-26's, five of those red-hot ships. Almost before they landed the radio was hot with the coded information.

"Jap fleet sighted west and south of the Philippines."

This was it. The Japs were not two hundred miles away. They were moving in our direction. Somewhere to the north and east was an American fleet, probably famous Task Force 58.

Maintaining radio silence, we didn't know where it was, but we were sure it was straining every boiler to catch those Jap ships and force them to battle.

With the radio flash, our field emptied of planes. Thunderbolts with bombs tucked under each wing, flying cover, the bombers took off. The men who flew them were keeping a date with destiny.

The men who remained behind, everyone who could possibly goof-off, clustered around the radio shack. The Seabees were there, mechanics, maintenance men. I caught a glimpse of Bulldozer Mike. He was sitting on an empty oil drum, methodically sharpening that knife of his. I walked over to him.

"Think you'll get a chance to use it again?"

He looked from the knife to me. "Well, no," he said thoughtfully. "Now that you mention it, I don't guess I will." He grinned. "I guess it's been kind of a habit with me to sharpen up this old sticker before the fracas starts. Old habits kind of stick with a fellow, Lieutenant." Sighing, with a little shake of the head, he thrust the knife back into its scabbard.

News began to come in. Hurried plotting revealed that the main Jap fleet was less than a hundred miles away. It was coming closer, moving in our direction. The whereabouts of our fleet was locked in grim radio silence.

Men lit precious cigarettes, took a single puff, tore them to pieces. Eyes were on the sky. You could feel blood pressures rising.

The pressures mounted higher when the time came for our planes to return. Ears were cocked to the sky listening for the throb of engines coming down the wind, a throb that did not come. Eyes searched the horizon looking for a gnat-sized dot that did not appear.

"Listen!" someone hissed.

A single Thunderbolt was winging in. It circled the field and we could see a ragged hole in one wing. The pilot set her down all right. Mechanics swarmed over the plane. We waited.

SOMEONE who had gone down to talk to the pilot came back with the story. "He says the whole bunch of them are out there, every battleship, every carrier, every cruiser the Nips own. He says he saw a B-26 put a bomb in the middle of a carrier's deck and get shot out of the sky the next instant. He doesn't know what happened to the others but the Japs had fighters up and waiting. He says there's a Jap battle wagon—one of their new ones—and two cruisers, out ahead of the main fleet, and that two of our newest battleships and a couple of our cruisers are hot after the Japs. They got them on the run and they're heading in our direction."

No more planes returned. The radio shack was on top of a little knoll. From this height, we watched the sea to the north. On the far horizon something moved.

The major trained binoculars on the spot.

"Battleship, by God! I can make out her upper works. Jap!"

At that distance, she looked as if she was crawling but if she was one of the newest Jap ships, she was doing better than thirty knots. As we watched, her hull crept up on the horizon. There was a cruiser on her port bow.

"The pilot said there were two cruisers," the major said, wonderingly. "I wonder what happened to the other one. Ah! I see."

Coming up behind the Jap wagon was another ship, two ships. The newest, fastest American battle buggies.

Bright flame spurted out from them and the Jap ship answered. The slow roll of distant thunder crept across the waters.

There had been two Jap cruisers but now there was only one. One of those sixteen-inch salvos had connected with the second cruiser.

Abruptly the Jap battleship turned in our direction, toward the island. How I wished we had a flight of torpedo planes based back on our air-strip! They would slow that fast devil, cut down her speed, let those Yank wagons come up.

Why had the Jap battleship and its two accompanying cruisers been caught out ahead of their main fleet, I wondered. Why would the Japs risk important units of their fleet on such a dangerous mission? One battleship, unless it had all kinds of luck, could not make a dent in the American battle line. Had the Japs expected to catch the Yanks napping?

The Jap wagon was pouring on every ounce of steam to escape. She was fast, that long, low devil. They had designed her for speed and had given her the muscles to run. Firing with her aft guns, she was running now.

But not quite fast enough. Those two lean Yank greyhounds had just a little more muscle, a little more reach. Slowly, a yard at a time, they were overhauling the Jap. Splashes from sixteen inch shells were reaching closer and closer.

Behind me, I heard the roar of a plane engine warming up. The Thunderbolt. With new bombs under her wings and a fresh supply of gas aboard, she was taking off again. Mentally I saluted that pilot. He was taking a damaged plane out again, he was going out to meet that Jap, with his bombs, to try to turn or slow her.

He went over our heads in a crazy bank that dipped one wing so low it brushed the palm trees. Zooming up, he went out a mile from shore, began to circle a spot on the sea. He completely ignored the Jap battle wagon.

"What the hell is that flier after?"

The battleship was what he wanted. But he didn't seem to think so. He seemed to be after something else.

The major jerked the binoculars from his eyes. "Submarine!" he yelled.

I saw it then, the tiny fluffy wake of a periscope. Out beyond the first one was a second, and a third.

"It's a trap! Sheer away."

THE major was trying to yell to the men in those Yank ships to change their course. I was cold all over. When I saw those periscopes I knew why this single fast Jap battleship and its two attendant cruisers had been out ahead of the main fleet. They were bait, designed to lure American ships into a chase, to bring them within range of those subs.

Those periscopes were Jap submarines. The Nip wagon had deliberately laid a course toward them.

It was the kind of trap the Japs were fond of using. The same damned trap that had cost us two carriers in the early days of the war. Now, if it worked, it could easily cost us two battleships, two of our newest, fastest, hardest hitting ships.

With those ships sunk, or damaged so badly they would have to limp home to port, the balance of power would swing to the side of the Nips. Their main fleet could move up and meet our forces. They could bring superior power against us.

Years of building new ships, years of hard fighting, hung on the success of that trap.

"Operator!" the major was yelling. "Contact those battleships. Warn them

of those subs!"

"I'm trying."

His key was going a mile a minute as he tried to reach the warships. He changed from code to voice and tried again. Then back to key. He was sending in the clear. No time to try to use cipher now. Suddenly, savagely, he stopped sending and began tearing into his transmitter.

"Damned tube burned out!"

The radio was useless.

"Look at that!" someone yelled.

The pilot had jerked the Thunderbolt up into the sky, forced her into a clumsy turn, shoved her nose down. He took her almost down to the water. A black object dropped from the plane. A bomb!

He was a lightning bombardier, that man. He put that bomb smack up against the periscope. White water feathered upward as the explosion came, revealing the black hull of the submarine under the surface. The bomb seemed to have damaged the sub's diving fins. It shot to the surface, wallowed there out of control.

The Yank battleships would not hear us yelling to them, they had missed our radio calls, but this was something they would not miss. They had seen the plane making the attack. Now they saw the submarine on the surface.

THOUSANDS of tons of steel heeled over as the wagons turned, swerved out and around to avoid the trap. As they turned, they continued firing. They had shortened the range a little now. A salvo smacked into the Jap. She slowed.

The two Yank ships had more speed than the Jap now. Sweeping in a huge circle out beyond the range of the submarines, they smashed salvo after salvo into the Jap battleship, smashed and smashed again until the Jap was dead in the water, her aft guns pointing at crazy angles, her masts twisted, smoke and flame pouring from her hull. Still they continued to punish her. A sixteen inch shell reached her magazine.

A blast of sound rolled around the horizon. When the smoke had cleared, the Jap battleship was gone.

Still in a gigantic sweep, the Yanks turned their guns on that Jap cruiser, now frantically trying to escape. I didn't wait to see what would happen. As I ran toward the airstrip, I heard the cruiser explode.

Careening, the Thunderbolt came in over my head. She almost missed the runway and when the pilot jerked her back on course and sat her down, he over-ran the end of the field. She rolled into a fringe of palms and tore off both wings.

Mechanics were already pulling the pilot out of the wreckage when I arrived. I took one look at him, at this man who had revealed the presence of the Jap subs and saved two Yank ships from damage. I felt myself go lightheaded.

It was Mike. Old Mike. Bulldozer Mike. He had piloted that plane.

"The pilot was shot up pretty badly," a non-com explained. "Mike came and said he could take her off if we would load her up."

Bulldozer Mike had flown that plane. So far as anyone knew, he had never flown a plane in his life. But far more important than this, was something else.

"Mike—Mike, how did you know those subs were out there? You took off before we had even spotted them. How did you know they were there?"

That was the big catch in the whole affair. I had assumed that the pilot had spotted the subs when he returned from his first patrol. But the pilot

hadn't seen the subs and he hadn't flown the plane.

He grinned at me.

"I kind of thought they'd be out there," he said.

This was absolutely all I could get out of him.

THE rest of it you have read in the papers, how the Americans caught the main Jap fleet, forced them to fight, how they strewed the wreckage of Nip ships over the southern seas, how they blasted the Jap navy apart, how they tore into the Nips like the great grey dogs of war that they were; how, two weeks after this battle was fought, Marines were landing in the Philippines, how two months later our supply ships were going in to the China coast. It was a decisive battle. The war turned on it.

But if the Jap trap had worked, if their submarines had knocked out two of our best battleships, it was a battle that could easily have gone the other way. Only the trap hadn't worked.

ALL the rest of that day I watched Mike. There was something about him that I wanted to know. He spent the afternoon puttering around the bulldozer, greasing it up. Once or twice I thought he patted it.

Soon after dark he slipped into the jungle. I followed him. Soon I heard voices. One of them was a grumbling voice that spoke with the tones of disgruntled authority.

"But, Michael, it was not necessary that you go to all of this trouble. You were given plenty of power to do the job in other ways. You could as easily have destroyed those—what do you call them, now?—Submarines?—You could have destroyed those submarines by much simpler methods. Or you could have contrived some way to warn the pursuing ships of the trap ahead of them, something like a mysterious light flashing over the water where the subs were. You did not have to sweat out the building of this air field, doing much of the actual work yourself."

Mike's voice interrupted. "But, Prince, it was fun. I actually enjoyed it. I especially enjoyed operating that bulldozer. You have no idea how you can move dirt with one of those machines. I tell you, Prince, if we had only had a bulldozer on the construction of—well, we would not have needed six days to finish the job. We could have done it in three and rested four days instead of one."

"That may be. But the Boss—"

"Is the Boss angry?" Anxiety suddenly appeared in Mike's voice. "Is he angry, Prince?"

The rumbling voice softened. "Well, not exactly. He understands. But he was a little worried, especially when you attacked those Japs with nothing but a knife. Oh, you needn't attempt to deny it. We were watching. You know the law, Michael. When we come here as men, we are subject to all the dangers men face. And this place, from what I have seen of it, is not exactly a healthy spot."

"I know. But they were coming, maybe not exactly here, but to this area. Those Seabees were coming, and those maintenance men, the mechanics, the pilots, and all the rest. Men were coming here, Prince. I did not see why I should stay away."

"When there is a fight ahead, you never see why you should stay away," the voice grumbled again. "Some of the rest of us would like a little vacation now and then, as well as you. But somebody has to stay and run the office and since you are always gallivanting around, naturally the duty falls on us. I'll have you know, Mi-

chael—"

"I know," Mike sighed. "Next time it's my turn to stay in the office. The next time something like this has to be done, you can come and do the job, Prince, if—"

"If what?"

"If I can't talk the Boss into sending me instead!" Mike laughed.

The other voice growled in answer. Then the growl faded into laughter. "We'll see about that, Michael, when the time comes. We'll see. And now—"

"Yes?"

"Now it's time to go. The Boss will want to hear the story from your own lips, every word of it. He was pretty impatient when I left. And even you, Michael, had better not keep *Him* waiting too long."

"I know," Bulldozer Mike answered. "Well, Prince, let's be off."

There was silence in the jungle, silence broken only by the croak of a tree frog, the soft sighing of the breeze through the trees, the rattling of a land crab picking its way through dry leaves. They went silently and they took a path I did not know existed, and knowing, could not follow.

THAT was the last time Bulldozer Mike was seen on that island. I was the last person to see him. The rumor went around that he had deserted, but none of the Seabees, none of the men who had worked with him, ever believed it. Whatever he was, Mike was not a deserter. When he finished a job, he went on somewhere else, to some other job that was waiting.

Who was he?

I don't know, for sure. I have my suspicions. He was here on this island at a crucial time. He helped us build an airport and he worked harder than any of us on the job. It was an airport located in what turned out to be a particularly strategic spot, on the one island in the Pacific from which the Jap sub trap could have been spotted.

The pay-off came about a week later. A colonel came in on a C-47, started checking maps, started beating his gums. He called us a bunch of incompetent fools and generally raised the roof.

He said we had built this airfield on the wrong island, that headquarters had picked another island about fifty miles away, for the field. Somehow we had gotten mixed in our calculations and landed on the wrong island.

I wonder if Mike contrived to have this happen too. For this was certainly the right island, the one right island in the whole Pacific.

Maybe our being here was a miracle. Maybe miracles happen.

The OBSERVATORY by the Editor

(Continued from page 7)

one over" on us, and the whole silly plot came out. But they should have asked Robert Bloch about our knowledge of the Lovecraft masterpieces before they assumed we didn't know the weird as well as we know the science fiction.

NATURALLY we don't expect anyone to believe the Shaver stories just because we say so. We hope to be able to produce full proof before we are through. But certainly these "superscientific" fans ought to have enough of the spirit of the true scientist in them to refrain from the unsportsman-like practice of planting fake "bones" in the boneyard. (Even if they fooled anybody!) And if they succeeded in fooling anybody, then they ought to be ashamed of themselves. They are not a credit to the great traditions of science fiction, the living illustration of the maxim "What man would create, he must first imagine." As a last word to these thoughtless pranksters, we invite them all to study the files we have accumulated. If, after doing that, they can refute the Shaver stories, we will owe them a great deal of gratitude. *Rap.*

ME AND MY SHADOW

By BERKELEY LIVINGSTON

What is a shadow? Paul Wingate had never given the matter a thought, but, suddenly, it became vastly important

"WHAT'S wrong now, Wingate?"

Paul Wingate carefully patted all the pockets of his sport jacket. Then he did the same to the pockets of his unpressed, gray flannels. There was a speculative look in his gentle-looking brown eyes. Suddenly he snapped his fingers. Turning abruptly, he started for the office door.

"Wingate!"

Archie W. Sloan almost screamed the name.

Wingate turned, his hand on the doorknob.

"What's the matter with you? I asked you what's wrong now, and you suddenly become hard of hearing. Are you trying to evade answering my question?"

"No. I have excellent hearing. But it had just occurred to me I'd left my pipe in the laboratory. I'm sorry but I was thinking of my—"

"Your pipe! I know. Did it ever occur to you that—"

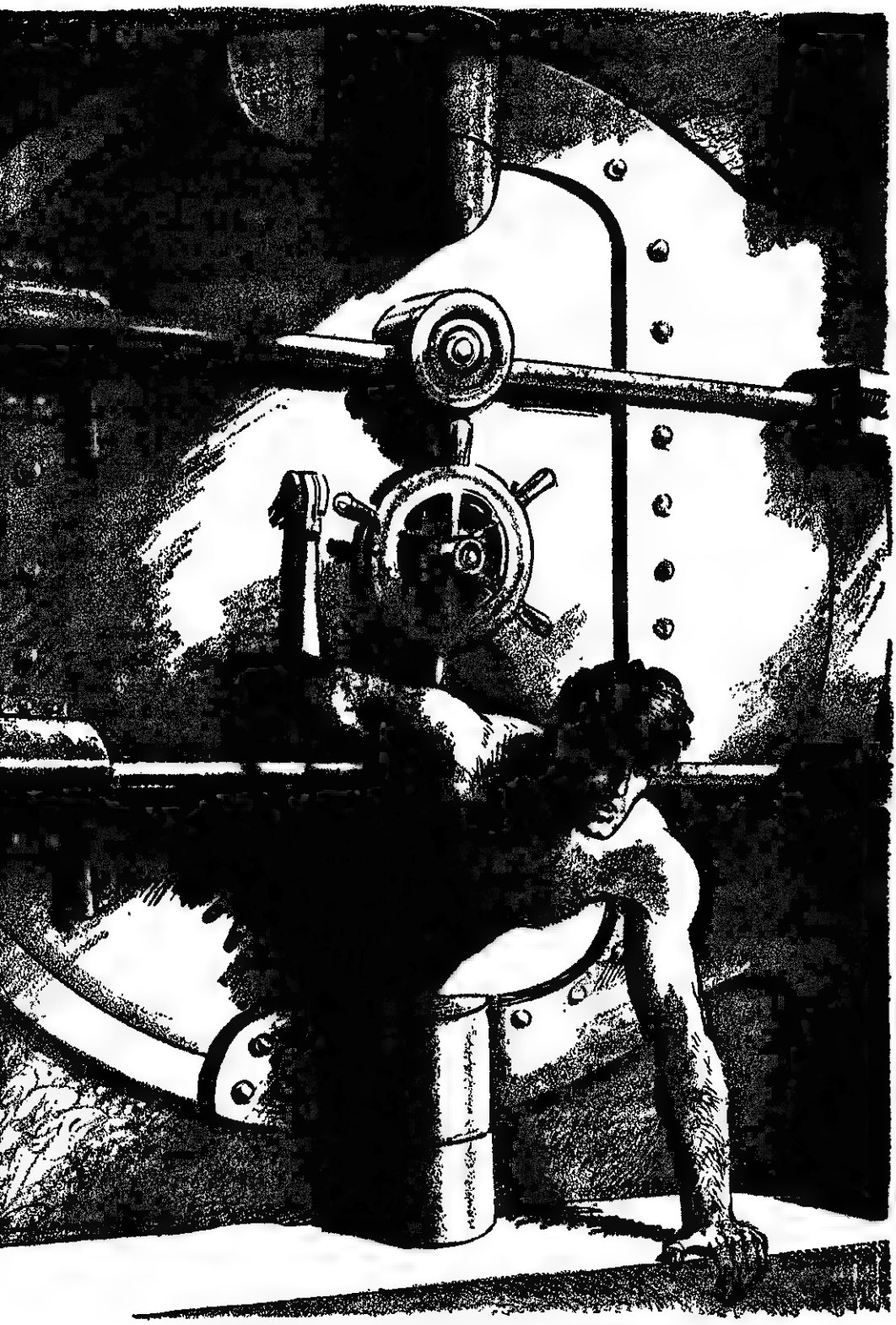
Sloan gave up in a windy sigh. He leaned back in his swivel chair and studied the man before him, appraisingly. There was nothing wrong with his looks. Wingate was one of those tall, loose-jointed men. Pleasant, regular features. What was more, the man came to Dehydrates Incorporated with a million dollar recommendation as a bio-chemist.

Walter Conway himself had recommended him. And Conway was the Mister Big in the newly formed Chemical Corporation, a government project. Yet, six months had gone by and this new and revolutionary process of dehydration which Wingate was supposed to have perfected, was still in little more than the experimental stage.

That was why Sloan had called him in the office. To find out what was causing the delay. As vice-president in charge of production, it was his job to break bottle necks. Insofar as Sloan was concerned, Wingate was a bottle neck.

"Look," Sloan began again, his temper under control, "I asked you—what is causing this delay? We think that it is only fair you give us a reasonable answer. Surely six months is a long enough time to perfect a method which is supposed to be already past the experimental stage."

Wingate looked at Sloan and wished he could leave, without having to answer these silly questions. Not that he didn't have an answer. But there was something about this little man behind the big desk, something about the



Wingate slowly drew himself *through the solid vault door!*

pinched features, the pursed lips, the narrow, calculating eyes, he didn't like.

"The explanation," Wingate began in his soft voice, "is quite simple. I was forced to destroy my notes. Ten years of research. So, of course, I have had to rely on my memory. To drag out a piece here and a piece there, until the picture is once more complete. Until that day comes, Sloan, I can promise nothing."

"H'm. So that's the best you can do?" There was a sneer in Sloan's high-pitched voice.

"Yes."

"Very well, Wingate. If that's all you have to say . . . Perhaps the board will not like that."

"It does not matter. One of these days the picture will be complete," Wingate replied, and walked out of the office.

MARCIA WARREN opened the door marked, "Private—Keep Out" and paused on the threshold. She stood there silently for an instant, taking in the orderly cleanliness of the laboratory. She liked order and system. And the neat array of bottles, vials, retorts and other essentials of Wingate's craft, each in their proper place, satisfied her senses.

Wingate was busy at a porcelain work bench in the center of the room. Equidistant at about ten feet from the work bench were three huge lamps of the X-ray type. They were fixed in a triangular pattern. Each lamp had its ray directed on something on the work bench; something which was concealed by Wingate's body.

She was able to approach until she stood almost at his shoulder, without his hearing her. Not that she tried to approach noiselessly. It was simply that his attention was so centered on what was before him that he wasn't aware of her presence.

She looked beyond his shoulder and saw what it was that held his attention. Suspended from the ceiling from two thin wires was a gleaming cube of polished metal. And the rays from the three huge lamps were directed upon that metal cube.

"What is it, Paul?" she asked, curious.

He went rigid at the unexpected sound. The face he turned to her was pale with fright.

"Marcia! You—you startled me!"

"I can see that. What's wrong, Paul? Why, you're actually trembling."

He felt the deep concern in her voice. His attempt at explanation only made her certain there was something wrong.

"Why, it's nothing, really. You just startled me. I . . . I was so intent—"

She broke in: "Nothing? Good heavens, darling! You're as white as a ghost. Now you look here. This has got to stop! There are only twenty-four hours in the day, and you can't work through eighteen of them every day for months and not begin to feel the way you do. We're going out tonight, understand? I'll expect you to meet me at the usual place at nine o'clock. And no alibis."

As if that closed the matter, she turned and started for the laboratory door.

The pallor still persisted in his face, as he watched the door close but his lips twitched in a sudden grin. His thoughts were far from the block of steel to which he now returned:

"Nerves . . . she is right; as always . . . forgot where I was . . . h'm, do me good to get away . . . must be more careful . . . damn! . . . now what?"

There had been a hissing sound, as of escaping steam. The purplish glow of the lamps faded—to pink—to mauve—and then went out. Quickly he ran

to the huge container which held the gas that was the catalyst for the other gases in the tubes. That hissing sound meant the tank was empty.

"Odd," he murmured as he closed the main valve. "Tank was full this morning. Couldn't have used so much. Still, the gauge readings are correct. Just as well. It'll give me a chance to dress."

He glanced at the wall clock. Seven. He had two hours. He hummed a few bars of an old Viennese waltz as he changed his acid-stained smock for the sports jacket.

Just as he reached the door, he remembered something. Returning to the suspended cube of metal, he lifted it for a second. His face showed no sign of the disappointment he felt. Turning again, he started to walk away, and slipped on a small patch of grease. For a second his arms waved wildly in a mad effort to retain balance; then he fell heavily across the work bench, tearing down in his fall, the suspended cube of metal.

The edge of the bench caught him across the middle, driving the breath from his lungs. He lay there, gasping until he regained his breath. As he lay on the table his body became the focal point of the three rays. For an imperceptible instant they glowed weirdly green, then resumed the blue-white color which they showed normally.

He lay across the edge of the bench, stunned. Then, the chock passing, he arose. A strange prickling sensation made its way along his spine, as he stood erect, stretching and flexing his chest and stomach muscles. He seemed none the worse for the fall. Then he left the laboratory for his apartment.

WINGATE, nattily dressed in a lightweight blue suit, stood by the elevator. His wrist watch told him he had half an hour to get to the rendezvous. He put up his hand to ring for the self-service elevator and swayed suddenly in a spell of dizziness. For a second it seemed that the walls and ceiling were converging upon him. Stranger still, he felt as if his body were expanding, as if the very atoms of his inner self were thrusting outward to burst the boundaries of confining flesh.

Nausea gripped him. Weakly, he leaned against the wall beside the elevator door, until the spell passed. It was over in a few seconds.

"Whew!" he panted, as he reached for a handkerchief. He felt the clammy wetness of perspiration on his face. "Now what brought that on?"

Dazedly he looked about. But everything seemed to be in its proper place: wall, ceilings, doors. His hand shook as he dabbed at the streaming pores. He lifted his left hand to see what time it was. The wrist watch was no longer on his wrist! It had been there only a few minutes ago. What had happened? How long had the seizure lasted?

He looked down at the floor and breathed a sigh of relief. The watch lay at his feet. He stooped to retrieve it—and remained in a stoop, his fingers extended for the watch. Nor could he, in those few seconds, arise; or even move. Unbelievingly his eyes stared at the impossible. His legs ended at his ankles! He could see the trouser legs extending downward to the carpet. But where his feet should have been, there was nothing but the faded section of the hall carpet.

He felt no pain. His mind, strangely alive, functioned clearly. The human Paul Wingate, horror-stricken from what had happened, became submerged into Paul Wingate, scientist, who had been suddenly confronted with a baffling problem in physics. The weight

and mass of his body was being submerged into the mass of the floor. Although he could not *feel* it; he could *see* it. The cloth of his trouser legs had formed larger, baggier rings.

Then his eyes took in another phenomenon. His hand reaching for the watch was bare from the elbow to the wrist. The sleeve of his jacket hung suspended from his elbow—*through the flesh of his arm!* And he had the answer!

He stood up slowly, watch in hand. Carefully, he lifted one foot. It pulled free from the floor, nor did he feel anything. Then he pulled the other leg free.

HE turned and went back to his room. By the time he got there, his jacket drooped in an unsightly mess from his torso. It was literally falling through his flesh. He felt nothing but a scientific abstraction as he pulled the jacket completely away from his body. Neither cloth nor flesh seemed any the worse for the experience. Then he put the jacket on again.

Standing before the mirrored door of his bathroom, he looked with close attention at himself. He held his watch in his hand.

"Now I shall see how long it will take," he murmured, his eyes on the minute hand.

In five minutes his jacket hung to his waist and his trousers were around his knees. He had to keep moving his feet about to keep them from sinking into the floor. The watch, too, had to be sunken into the palm of his hand.

Then he became aware of the time. Ten minutes to nine. And he remembered his date. Adjusting the jacket and trousers until they hung properly once more, he went to the elevator.

His mind was in a ferment of speculation, as he rode the elevator down.

"I must get back to the laboratory as quickly as possible. The unknown factor—I must find it! Something in those rays caused the inner molecular structure to disintegrate, yet retaining as it were, a thin boundary of flesh—a skeleton not of bone. Yet that skeleton too is formless. For did not the cloth penetrate?"

It was too much for him. He knew, though, that research would show the cause. He had seen the effect.

MARCIA WARREN was waiting for him on the corner of Rush and Oak. He was ten minutes late.

"Hello, Paul," she greeted him shyly. She always felt this odd shyness once they were away from Dehydrates Incorporated.

His manner of greeting was strangely jovial. It struck a wrong note.

"Ah! My Goddess of the Hieroglyphics," was his almost exuberant greeting. Then linking arms, he asked:

"Where to, Marcia? Isbell's—or have you other plans for me?"

She looked up at his dark eyes, their lids crinkled in laughter, and fell in with his mood.

"No, not Isbell's. 'I have plans,' the lady said," she replied.

"So? Conspiring to upset the sedate pace of my life, eh?"

He had removed his arm from hers as they started to walk. She noticed how nervous he had become. His fingers were in constant motion. First they would pull at the waist of his trousers, then they would pull at the shoulder of his jacket. Then they would fiddle with his wrist watch and place it into a jacket pocket. She said:

"What's wrong, Paul? Why are you so nervous? Now look. All this forced gaiety. It isn't like you. Give out."

"Give out?"

"Yes. Tell Marcia all."

He didn't answer for a few moments. His eyes seemed to see only the dark stretch of Oak Street. But unknown to her, he watched her carefully, appraisingly, from the corners of his eyes.

He liked what he saw. She was quite tall, almost as tall as he, and slender. Always quietly dressed in neat business suits, tonight she wore a gay, print dress. And as if this night were an extraordinary occasion, her soft, lustrous brown hair, usually severely dressed, had been fluffed out, to match her mood.

She was private secretary to one of the executives of the company and had met him the second day he had been there. Their friendship, stemming from that first meeting, was a natural and easy comradery. They had gotten into the habit of going out to dinner several times a week. But in the last two months, he had seen her less frequently. He hadn't realized how much he missed her, until just now.

"Well," she broke into his thoughts, "aren't you going to tell me this dark, dread secret? Or shall I guess?"

He smiled but continued to remain silent.

"Okay, Paul. Then I'll guess. I say that your experiment in the laboratory has nothing to do with dehydration. It's something so important that all the German agents in this country are haunting you," she said; and when he turned a blank, expressionless face to her, she laughed up at him.

"Don't be upset, dear," she laughed. "I was just kidding. But darn it! You are so mysterious. Your voice for instance."

"My voice?"

Her bantering mood was gone.

"Yes. From the first day I heard it, I have been puzzled by it. Oh, I know it isn't any of my affair; still it was only human to wonder."

"Go on," he said softly. They were almost at the drive. He seemed intent only on the flow of traffic. She gave him a sidelong glance.

"Well—your accent; no: your inflections, they sounded strange. You speak such a precise and meticulous English."

He was silent to that.

"I am a busy-body, aren't I, Paul?" she said contritely.

He smiled. "No. And it is quite all right. Tell me more of myself." He gave a sudden hitch to his shoulders and pulled sharply at his trousers. She looked puzzled by the nervous movements.

"Do you remember last Wednesday? You were busy at your desk and I peeked over your shoulders. You were writing something—in German."

"I remember." His tone now was almost curt.

"Furthermore — and this is the strangest thing of all—you were hired as a researchist in dehydration and all your experiments have to do with metals. Conway recommended you. Sloan thinks you're a dimwit. Yet nothing is done about it."

"Where are we going, Marcia?"

SHE stopped short at the unexpected question. Then she saw they were on the boulevard.

"Tom Jordan's," she answered as she turned south on the drive. "He asked me over tonight. And asked me to bring you. He likes you. Why, I can't see. You're such bad company."

Jordan was a well-known artist of industrial designs; a friend of Marcia's. He had a large studio apartment on the drive. Wingate had been there several times before. He didn't much care for the crowd of imitation intellectuals who formed the usual hub of attraction at Jordan's parties. Nor for the well-to-do group who patron-

ized these intellectuals. But, tonight, he was thankful that they were going there.

His mind was busy with the problem presented to it earlier that evening. And he realized that Marcia's curiosity, if given full play, would lead to embarrassing questions.

"I'm glad to hear that, Marcia," he answered. "Perhaps it's just what I've been needing—a diversion."

"Yes? Why?"

He knew that if he didn't answer, she might take his silence for a snub. But he had no choice in the matter. He was right in his thinking. She did take it the wrong way.

"Oh. I see. It's none of my business. Well . . ."

She had turned into the driveway of the apartment hotel, before he could answer. And although his eyes pleaded forgiveness, she appeared not to notice.

Jordan's was a madhouse of noise and movement. Someone was imitating a boogie-woogie artist on the small piano. A group of half a dozen people in a corner of the room were loudly discussing the merits of some artist. No one seemed to be at rest. Wingate's and Marcia's entrance was almost unnoticed.

A small, dainty man, with the quick, nervous movements of a bird, greeted them. It was Jordan himself.

"Marcia, my dear! And Wingate! So glad to see you both. Isn't this *too* frightful. But I'm *so* glad to see you both. These hectic people are simply driving me *mad!* My goodness, how I rave on!"

Wingate found himself grinning at the exuberant phrases. This womanish way of talking was an act of Jordan's. Underneath the flippant, sissified manner was a shrewdly realistic person.

"Oh, by the way, Wingate, there's a friend of yours here. Walter Conway."

"Where?"

"In the kitchen, as usual. And he has his latest protege with him. The most *amazing* person! Plays the piano —or something."

Wingate excused himself:

"I must see Conway, Marcia. Please, do not be angry with me. I'll explain later.

Her eyes showed anger and hurt. But his words dispelled that look. She reached out to touch him with a reassuring hand but he had already turned to seek Conway.

THE kitchen was certainly the quietest room in the apartment. Although Wingate had attended several of the brawls thrown by Jordan, it was the first time Jordan had mentioned Conway. Wingate wondered about the reference to Conway's being in the kitchen "as usual."

He paused on the threshold and stared with frank amazement at what he saw. There were just two people there. One, a small woman, with an arresting figure and honey colored hair, was leaning against the kitchen table. She was watching a great, fat man, who, with apron tight about his huge middle, was busy at the range. The man's size alone identified him. It was Conway.

Conway was speaking in the manner of a lecturer:

"You see, Erica, spaghetti *can* be an international dish. Hungarian paprika, Mexican chili beans, Indian chutney and universal salt gives it an international flavor.

The woman clapped her hands gaily in applause when he finished speaking. He turned a shining face to her and grinned his pleasure. Then he saw Wingate.

"Paul!" his voice suddenly boomed in greeting. "Ah, my boy, I'm glad you've come. Want to see you. Oh,

by the way, let me introduce you two. Erica, this is Paul Wingate; Paul, this is Erica Seeling."

Wingate nodded his acknowledgement of the introduction. He ignored her out-thrust hand. This cellular metamorphosis he had undergone was still present. He felt both uncomfortable —and silly. As he said:

"It is an honor, Miss Seeling," he kept shifting his feet, hitching with nervous fingers at the waistband of his trousers and twisting his shoulders.

The actions were so at variance with his usual calm and collected manner that Conway looked his bewilderment.

"Say! Something wrong, Paul? What're you so nervous about?"

"Nervous?"

"Yeah. You keep hopping around like you've got ants in your pants."

The woman laughed aloud at Conway's expression.

Wingate quickly improvised an excuse. He couldn't tell Conway, in the presence of the woman, what had happened. So he said:

"Uh, no, I'm not nervous. But I have discovered I am allergic to certain vitamins. Took an overdose this morning and have been this way since."

The explanation seemed to satisfy Conway, for he laughed, and replied:

"So science bit the scientist, eh? Well, you fellows play with fire. Got to get burned once in a while."

"Oh!" Erica Seeling exclaimed. She turned a pair of warm blue eyes in an approving look. "So you are the one Walter has told me much of."

The high color of Conway's face became darker in embarrassment at Wingate's reproachful glance. He stammered an excuse:

"Why—uh—yes, Erica. Y'see Paul, I got to braggin' you up and she was so interested—well, guess I sort of let the cat out of the bag."

She laughed again.

"Cat out of the bag. It is a quaint expression, that. But I think I know what Walter means. Please, Mr. Wingate, do not be angry with Walter. I shall keep your secret."

"Of course you will, Erica my dear," Conway agreed with hearty approval. "You can bet on that, Paul. And by the way," he went on, to shift the conversation from dangerous waters, "Erica, here, has had an interesting life."

"Yes?" Wingate said.

"She's a refugee, too. Oh, not in the same sense you were. But she too had to flee the Germans."

"Walter! You did not tell me he was a refugee." Erica's voice pleaded for details. And Conway supplied them over the silent protests of Wingate.

"YEP. Wingate was working in France at the time of the invasion. Got caught before he could complete his experiment. Had to destroy his notes and formulas. Escaped from the Germans and joined the Underground movement."

Erica interrupted the biographical sketch:

"But how did you hear of him?"

"He worked for our French affiliate," was the succinct answer. Conway continued:

"He was caught and escaped again —to England. I saw to it that he was brought here."

"How thrilling!" she whispered. "Alas, my story is more prosaic.

Wingate gave her his polite attention. But before she could launch into her story, there was an interruption.

"Ah! So you found them!"

It was Tom Jordan from the kitchen doorway. He came into the room, thrust an arm around Erica and said:

"Do forgive me, darling. But I

must carry Walter off. I want him to meet Kurt."

"Is he here?"

"Yes. And he has some of those *marvelous* prints with him."

"Oh! Walter would love those."

She turned to Conway.

"It's Kurt Ernst—the painter—the one I was telling you of."

Conway looked blank.

Wingate had heard nothing of what had been said. He had suddenly become nauseated. He went through the same experience that had occurred at the elevator. Had not Jordan, Conway and Erica been so engrossed in their conversation, they would have seen him sway.

By the time Conway turned to speak to him, he was himself once more.

"Here, Paul," Conway said. "Talk to Erica a while. Jordan wants me to meet another of his wacky friends."

Jordan laughed, a high, cackling sound. Then they were gone and Wingate was alone with the woman. He stole a furtive glance at his wrist watch.

She saw him return it to his pocket and said:

"Am I keeping you from something, Paul?"

He made haste to apologize. "Oh, no. Idle curiosity. Which reminds me, I must congratulate you upon your English."

"Why?"

"Well, refugee and all that. Just curious, I guess."

"Isn't that odd?" she said, giving him a sidelong glance through long-lashed eyelids. "I, too, am curious. About you."

"Me?"

"Yes. You remind me of someone I knew—in Leipzig. His name was Paul Wilmer." She gave the Germanic "V" sound to the surname. "He too was a bio-chemist."

HER words created terror in him. He knew if he spoke then, his voice would reflect the terror he felt. So he screwed up his face into an attitude of deep thought. The few seconds grace it permitted was enough for him to regain his composure.

"Paul Wilmer," he mused aloud. His eyes looked at a point directly above her lovely hair. "H'm. Sorry, I've never heard of him."

"I didn't say you did," she reminded him gently. "I merely said you looked like him."

"Oh!"

"Yes. He was a *very* interesting person. He was doing some very interesting work. Something to do with the molecular structure of metals."

"What do you know about metals, Miss Seeling?"

"I?" She laughed lightly. "How like Walter; he forgot to tell you what I do. I am one of those rare creatures—a lady scientist."

Her name wasn't Erica Seeling. He knew now who she was. It was Erica, all right—Erica von Selig. He had to warn Conway. As if the thought had conjured up the man, Conway was in the doorway.

"Paul," his hearty voice was booming. "Come out here. Want you to meet someone."

Wingate made haste to get to Conway before Erica did. He had to talk to him.

"Walter," he demanded in a low voice. "I've got to talk to you alone. It's important."

Conway's eyebrows lifted in surprise at the urgent tone.

"Of course, my boy." Then to Erica. "See you later, dear."

They walked into Jordan's study. It was empty.

"What is it, Paul? What's bothering you."

WINGATE immediately launched into a recital of what happened in the laboratory, but left out what had *happened at the hotel.*

"Then you have the solution?" Conway asked.

"No. But I'm certain now that it won't be long before I have. Just as soon as I get back to the laboratory, I'll check those tanks. They hold the key." He paused, groping in his mind for the proper words to use in speaking of his discovery about Erica.

"Walter," he went on, choosing words carefully, "this Miss Seeling—"

"Yes?" Conway's large, florid face was bland.

"How well do you know her?"

"Why?"

"She said I looked like Paul Wilmer."

Conway looked beyond Wingate. Paul saw he was perturbed by his disclosure.

"And you wondered how she knew of Paul Wilmer, I suppose?" Conway asked.

Wingate nodded his head.

"I'll have to talk to her about that," Conway said. He was no longer the bluff, hearty patron of the arts. There was a note of iron in his voice.

"Let's go out and look at this man Jordan was talking about," Conway suddenly suggested after a moment's silence. What he meant was: "Forget it! I'll take care of Erica."

"I thought you saw—"

"No. That was Jordan's way of cornering me. Something he wanted to see me about."

There was Jordan, Erica and another in the drawing room when they arrived. Wingate was pleased to see Marcia was still there. She was deep in conversation with an unkempt-looking individual who looked as if he never had a haircut.

Jordan and Erica were talking to a tall, broad-shouldered man. Wingate saw only the bull neck and close *cropped blond hair. Then the man* turned to say something to Erica beside him and Wingate saw his face.

"Ernst von Shieden!" he exclaimed aloud. He started to turn but it was too late. Both Jordan and Erica saw them and were beckoning them over.

Von Shieden saw their gestures and turned to see who the newcomers were. Wingate saw the familiar scar, felt the icy orbs of the man burn into his for a moment, then they were confronting each other.

WINGATE wet dry lips. For a second he thought he was going to be physically sick. This couldn't be! He had left all that behind. But no, the past had returned.

"Kurt -you *must* know each other," Jordan's piping, effeminate voice broke into Wingate's consciousness.

"Huh?" he said stupidly.

But Jordan had not been talking to him. His remark had been addressed to Conway. Conway, pressing close against Wingate's shoulder, nodded his greeting.

"Kurt," Jordan continued, "this is another of our shining lights, Paul—" He hesitated deliberately over the last name—"Wingate."

Von Shieden's thin lips curled in a crooked grin.

"Wingate," his thick voice rolled the name out in two syllables. "Zo. I am *glad* to zee you."

He thrust out a thick-fingered brown hand in greeting. Deliberately, Wingate thrust both hands into his trouser pockets. The fear and sickness he had felt on seeing the German, passed. He had faced danger of this sort for many years. It was the unexpectedness of it all that had upset him. He

twisted his head to face Conway:

"This man is a German Gestapo agent, Walter. Just as Erica is. And I am going—" He stopped puzzled. Conway wore a strange look. His heavy face was shiny and there was an odd, glazed appearance about his eyes. He was smiling.

Wingate turned to face the others. They stood close around him—hemming him in—a mouse caught in a trap. He felt a prodding hardness in his left side. Conway pressing close against him whispered hoarsely:

"Erica! Get the car!"

The woman turned and left. Jordan, his face as eager and bright as if it were all a game, whispered warningly:

"He came with that Warren girl. What of her?"

Conway looked puzzled. Von Shieden supplied the answer:

"Take her alzo!"

For a second, Wingate went tense. Conway felt him stiffen and pressed the gun he was holding savagely into Wingate's side.

Jordan walked over to Marcia, now alone. He took both her hands in his and said:

"*Darling!* You *must* come with us."

"Where?"

"To Conway's. Wingate is going, also. We just won't take no for an answer," he continued, as he gently pulled her to her feet. She stood erect, hesitant; but before she could make up her mind, he was leading her to the door.

The three men watched Jordan and the girl pass from the room. Conway waited for a few minutes, then nudged Wingate forward. Von Shieden, a hand thrust menacingly into a jacket pocket, fell in on Wingate's other side.

Wingate saw Jordan's car pulling away, when they reached the street. Conway's expensive car was at the curb, Erica behind the wheel. The three men got in, Wingate still in the middle.

WINGATE suddenly sat erect from the slumped position into which he'd flung himself. Light gleamed dully on the metal of the automatic pistol Conway had jerked from his pocket at Wingate's unexpected move. They watched curiously the expression of concentration on Wingate's face.

As for the prisoner, all thoughts and feelings were submerged in this, the most bewildering feeling of all. He was in the grip of another seizure. This, however, unlike the previous one, did not bring nausea or dizziness. It was a strange feeling, in fact. It was as though his body was being drained of every bit of liquid it contained. He felt, indeed, that when the process was done with, he would float off into space, light as a feather. Even his mind felt airy, empty.

"What time is it?" he asked. His voice was oddly gentle.

Conway looked at him questioningly for a second, then glanced at his watch and answered:

"One o'clock."

The answer seemed to satisfy Wingate, for he lapsed into a silence which endured through the few moments it took to reach Conway's home, a two-story gray-stone building on North Dearborn Street.

Erica produced a key from her bag and opened the door. Wingate noticed Jordan's car parked out in front. There was no sign of him and the girl. They proceeded directly to the library. Jordan and Marcia were waiting there for them.

Wingate remembered the room with its warm walnut panelling and ceiling-high rows of books. The wood-burning fireplace was empty of flame on this

night, though.

Marcia watched them come in. There was still the puzzled look in her eyes. But when she saw the automatic in Conway's hand, she gasped in horror.

Conway, his manner jovial and hearty again, said:

"Now, now, Miss Warren. No need to be alarmed. Nothing is wrong."

"Bah!" Von Shieden suddenly took command. "Never mind the girl! It is Wilmer in whom I am interested. Well?" he demanded, turning to Wingate.

"Well, what?" Wingate asked softly.

Von Shieden started forward, his hand clenched. Strangely, it was the effeminate Jordan who stopped him.

"No violence, please!" he said, in his piping voice. He still placed special accent on words, but Wingate noticed a difference in his bearing. He was standing beside the armchair in which Marcia sat. He looked as if he were all wound up, a strand of thin wire.

Von Shieden bent in a half crouch, stopped at Jordan's words. He turned his head stiffly. There was a snarl on his mouth.

"Why?"

"Because," continued the piping voice, "I say so! Remember this, Von Shieden, you are not in Germany now. *Here*, I am your superior!"

Von Shieden straightened abruptly and returned to sit on the library table.

"And now," Jordan went on, "Wingate, or Wilmer, or Wilmont, as you were known in France, we want some information from you.

"In case you should think you have a chance to get away, I want to advise you against attempting it. Although I just warned Von Shieden against doing violence, it was only because I don't think it'll work in your case. No! of that I'm certain."

WINGATE was thankful for Jordan's gabbiness. It gave him a chance to think. Besides, he was curious to know how all this had come about. Knowing the German manner of boasting and preening their egos when they had the upper hand, he was sure Jordan wouldn't miss a single detail of how they accomplished ensnaring him. Nor did Jordan disappoint him.

"No," Jordan continued. "Violence is not for you." Wingate was quick to note how changed Jordan's voice was. Gone were the effeminate mannerisms. Jordan said:

"We proved that at Aumont. They beat you almost silly there, didn't they? They would probably have beaten you to death, hadn't I intervened."

"You?" Wingate gasped.

"Yes, I! Surprised, aren't you. Perhaps this will surprise you also. *I* arranged for your *escape!*"

Jordan laughed in pleasure on seeing the look of bewilderment on Wingate's face.

"Yes, Wingate. That *Frenchman* who helped you outwit your warders was one of our men. We saw to it you were able to escape to England. Of course it was only *coincidence* that Conway happened to be in London when you arrived. It was only natural for him to seek you out. After all, you were a scientist who had an international reputation. Incidentally, that was the only weak spot in our plan—you might question why Conway should take this deep interest in you. For you had established your reputation on a single discovery—a revolutionary process in dehydration."

He paused, took a long breath, and went on. Wingate noticed that Marcia had become so absorbed in Jordan's recital that she no longer showed her fear.

"Luckily for us you were so thankful to have escaped from the 'Nazi swine' that you questioned nothing. Conway's reputation was superficially of the best. More, it was genuine. What we were surprised at was your credulity on accepting the excuse he offered."

"You mean about coming to work for Dehydrates?" Wingate asked. "Well, it sounded reasonable. You see, when I told Conway, in reciprocation for what he was apparently doing for me, about this experiment of mine, he suggested I go to work for these people. Said that if I worked openly for the government, there might be a leak. So I did as he bid."

"And lucky it was for us," was Jordan's comment. "Now we want your notes, everything you have discovered."

"Suppose I refuse?"

Jordan pulled a cigarette from a silver case, lit it, sighed and said:

"Then we shall be forced to expose you as a German Gestapo agent!"

"Wh-what do you mean?"

"Have you forgotten—Paul Wilmer?"

Wingate said nothing.

"Then let me refresh your memory. Paul Wilmer, a young man of remarkable talents, devised an ingenious plan to escape from Germany. At the time the war began, he was an associate professor at Leipzig University. He had grown to hate Nazi regime—worse; grown to hate the whole German way of life. So he became a Gestapo agent. Because of his remarkable facility with foreign languages, particularly French, he was sent to Paris. And there, he did a daring thing. *He joined the French Underground!*

"You know Von Shieden well, don't you, Wilmer?"

Wingate smiled crookedly.

"I see you do. It was he who found you out. And would have beat you to death. Perhaps rightly so. But it was I who saw your real worth. We found out about your experiments with metals. You were trying to do something which no other man had ever done. Make steel as light as a feather. We were too late—in Paris—to stop you from destroying your notes. But now—you will give them to us. Otherwise we will turn you over to the F.B.I., dead or alive. And on your person will be your Nazi membership card, your secret Gestapo identification and your *French Underground* credentials. You can see what your chances are for disproving them."

"You—have my Gestapo file here?"

"Yes. Nicely laid away in a vault. Ready at hand for whenever we may need it."

WINGATE let his breath out in a long sigh. So this was it! He knew why they wanted his formula. It was a simple matter of supply. Steel had weight—weight which in a truck or train or plane needed a road or surface or high engine power. But steel treated by his process—well even a fool could see its potentialities. Should Germany get hold of it, it might well be the turning point for her. At the least it would add years to the struggle.

And they had him where they wanted him. For now they knew that even if he refused, he would gain nothing. They would destroy what they couldn't use.

As if Jordan had been reading his mind, the little man with the mincing manner, reminded him:

"Keep this in mind, Wilmer. If you should refuse—well, the dead tell no tales."

Wingate sparred for time then, if only for a few moments in which to size up the situation.

"But the experiment is not quite complete."

"Don't worry about that. Tomorrow you will acquire an assistant. Erica."

"Erica?"

"Yes. In her own way, she is as much a genius as you. She was the one who gave the German Army their energy capsules. You've heard of them, I suppose."

Wingate showed his repugnance. He had heard of the drug. It was something only a mind, depraved, without regard for humanity, could have devised. It was a derivative of one of the hypnotics. Under its spell, the soldier became a lust-filled, crazed brute. He knew also, that when the effects wore off, depression set in. Such depression as could unhinge the mind. Well, there was no use thinking any more. They weren't going to let him live, no matter which course he chose. There was only one torturing thought: Marcia. But he had to act now. And even as he moved, with a sudden startling leap, he breathed a prayer for her safety.

Ten feet away, Jordan stood beside Marcia's chair. Von Shieden sat on the table, almost as far away. They presented no threat to Wingate. But directly behind him was Conway. And he still held the gun.

So Wingate leaped sideways; and Conway's reflexes acted as Wingate knew they would. Conway lunged in the direction of Wingate's leap. And Wingate pivoted, smashing hard with his fist at Conway's throat.

The most amazing thing happened then. Wingate's fist *passed entirely through Conway's neck*. Conway, still going forward, grasped at Wingate with his free hand. The hand caught in the folds of Wingate's jacket. Conway pulled hard at the cloth . . . and pulled it completely from Wingate's body. Wingate's shirt and undershirt came away from his body also.

Simultaneously, Von Shieden and Jordan leaped to Conway's assistance. Just as the three converged on Wingate, now in the center of the room, the room was plunged into darkness. Marcia had calmly stood up, walked over to the lamp on the library table, turned it off. It had been the only illumination in the room.

Wingate, running at full speed, had plunged directly at the room's double doors—*and went right through the wood without so much as marring its surface*. The only evidence of what he had done was the remainder of his clothes lying on the inside of the room.

WINGATE suddenly felt exhilarated. He felt no ill effects from what had happened. The front door offered as little resistance as had the others. Quickly he ran over to Jordan's car and slid behind the wheel. He had noticed when they pulled up that the motor was running. The car moved smoothly away from the curb.

He drove at break-neck speed to Jordan's hotel. Luckily only the night clerk was on duty. The clerk stared pop-eyed as Wingate, running at full speed, leaped through the locked elevator door. In a few seconds, he was in Jordan's apartment.

First he went to Jordan's bedroom and selected underwear shorts, slacks and the largest sweater he could find. The slacks were a little short, but they had to do. Then he went to the study.

"So Jordan is the leader," he mused aloud. "Then the keys to the vault must be here somewhere. Probably in a safe somewhere."

A few minutes search proved there was no safe. The large, office-type desk in a corner next took his attention. The top was bare, except for the lamp and the desk blotter.

And all the drawers were locked. He had no way of opening them either. And if he thrust his hand into a drawer, he would not be able to bring out what he felt. There was only a single possibility left. He had to find out where Jordan banked his money. "Vault" could mean only one thing: a bank.

He went back to Jordan's bedroom and began a methodical search of Jordan's clothes. He found what he was searching for, at last. He looked at the small pass book in his hand. The neat, gold letters read, "Associated National Bank." He reached into the inside pocket of the blue suit in which he had found the pass book. There was a prayer in his heart as he scanned the collection of cards his fingers had brought forth.

His prayer was answered. A small card told him what he wanted to know. Jordan also had a safe-deposit box at the Associated. Number 618.

Wingate found himself whistling a cheery tune as he sped down the deserted drive toward the Loop. Then he remembered Marcia and the whistling died. But he had no further time for thought. The imposing bulk of the bank loomed up before him. He parked the car and strode up to the building. For a second or two he studied its barred door; then making up his mind, he walked through it. He felt his clothes pass through the fleshless flesh —and then he was in the lighted interior.

A single guard sat at the head of the stairs leading to the vaults. Wingate pressed himself into a dark corner, where he could see without being seen. His bare feet kicked something. It was an empty tobacco tin. He was smiling when he picked it up. He knew how to get the guard away from the stairs.

Taking careful aim, he hurled the tin at the farthest teller's cage. It sped true to the mark and made a heart-satisfying clatter, as it struck the metal bars.

THE guard leaped from his chair at the unexpected sound. Drawing his gun, he started at a lumbering run in the direction of the sound. Simultaneously, Wingate ran to the stairs—and made them. The closed gate at the bottom of the stairs was negotiated. Then he was at the huge, solid metal door that guarded the safety deposit boxes. Wooden doors had been easy to get through. But this six inch wall of solid steel. Wingate shrugged his shoulders and stepped up to the metal door, and through it. He felt nothing, no pain; there was no feeling of contact.

His heart was running a mad race, as he surveyed the long rows of metal boxes. He suddenly remembered he didn't have the key. He couldn't force the boxes. His fingers would simply pass through the metal of the little knobs on the boxes.

For the first time in all this eventful night he felt despair. To come so close and then—defeat. There was nothing he could do about it. He turned and with sagging shoulders went back to the metal barrier. He started to turn for a last bitter look at the boxes and saw, from the corner of his eyes, the key hanging on a hook just inside the gate. Above it was a small typewritten notation, "Master Key—Vault Boxes."

Then Wingate thought of something else. The files and reports were on paper. No matter how small the bits he could tear them into, there was always a way of putting them together. He stood for a second puzzling over this new development. He cast his eyes about in search of an answer. Then he saw the locker. It was open. And

within was the guard's uniform. He found what he hoped to find in one of the pockets. A paper pad of matches.

. . . Paul Wingate crouched over the small pile of grayish-black ashes. That was all that remained of what he'd found in the box 618.

"Devilish," he said to himself. "But so clever. Everything was here. And not in photostat form. The originals. They'd even shown that joining the Underground was their idea. I would have been convicted, and quickly too, from this evidence. Well, that is done."

He sighed, stood erect and stamped the ashes into dust. Then he turned and started for the door—and fell writhing to the floor.

He had never known such exquisite agony. Every muscle and tendon in his body felt as though it was being torn from its moorings. His eyeballs burned as though with an inward fire. His brain, too, was on fire. Pain, unbearable pain, forced a shriek from his lips. The seizure was, luckily, of short duration; had it lasted even a moment longer, he would have died of shock. As it was he had to lie on the floor for several moments, to recover his composure.

He was shivering, as with ague, when he arose once more. His breathing was a loud gasping sound in the still air. He had just gone through another transformation. Now he was solid again . . . and in the worst predicament of all. He was in an air-tight chamber. The lock was undoubtedly a time lock.

He made a quick mental calculation of the time. As close as he could guess, it was a little after two. And the vault would not be opened before eight. Six hours! Even an hour would be too long. The fire he had set had used up just about all the oxygen in the air. Already he felt a little dull in the mind. Breathing was becoming more and more difficult.

Wildly, he tried to figure out the time lapses between his seizures. That was why he kept looking at his watch while at Jordan's. But there was no watch or clock here. It had been one o'clock when the last one took effect. Then the seizures were coming at more frequent intervals. But how long before the next came?

CALMLY he sat on the tile floor and leaned against a row of steel drawers. Time dragged by to be measured by his pulse beats. Seventy-two to the minute. Now he could feel the beats coming slower. He wondered with abstract scientific detachment how long it would take to smother to death. It was becoming more and more difficult to keep his eyes open. His will lost all power to control his muscles. His eyelids kept closing in spite of himself; it was only with the greatest effort that he was able to keep them apart. He fell into a half-doze. He lay relaxed, his breathing shallow.

How long he lay with eyes closed, he didn't know. But suddenly he was alive, in every one of his fibres and brain. He felt that odd sensation of lightness again, and knew he was undergoing another transformation. He tried to get to his feet, but all he could manage was to crawl weakly on hands and knees to the metal barrier. It took only seconds, seconds which seemed years, to go through the metal—then he was on the other side. And he was gulping in great lungfuls of life-giving air.

The guard was nowhere to be seen. Not that Wingate cared any longer. But it helped. His clothes were still at the outside gate. He donned them quickly and went back to Jordan's car.

Dehydrates Incorporated had its building in the manufacturing district of the near North Side, a ten-minute

ride. The building was dark. Wingate parked the car and approached the laboratory entrance.

He had only one thought in his mind. His notes. So it was that he didn't notice the absence of the guard at the laboratory entrance. The door opened to his touch. For a bare instant he wondered about the guard, then he was in the laboratory. It was dark. He flicked the light switch and started toward his desk . . . and a voice said:

"What took you so long?"

He knew who it was, even before he turned. It was Jordan. He, Erica and Von Shieden were leaning against the porcelain-topped work table. Wingate heard the closing of a door. He turned his head and saw Conway, the now familiar pistol in his hand, facing him.

"Oh," Wingate replied airily, "I had some errands to do."

"My clothes fit you fairly well, don't they?" Jordan observed.

Wingate laughed. "Not so bad."

"Erica tells me you've done wonders."

"So you've looked the place over."

"Oh yes. We've been here for an hour."

Wingate had been moving furtively toward his desk. Jordan suddenly grinned and said:

"Don't worry about your notes. We have them."

"Then what are you waiting for?"

"Oh, that? You told Conway of something that happened tonight. We are here to help you complete the experiment."

WINGATE had been through too much to care any more. He didn't see Marcia. He was afraid to think of what might have happened to her. He knew that, at best, she thought him a coward. But this thing was bigger than anything or anyone. He had always been ready to sacrifice his life. Perhaps it was wrong to expect her to sacrifice hers.

"How would you and your gang like to go to hell?" he asked. He confronted them, teetering back and forth on his heels. His bearing was carefree and his voice was without emotion.

"Just to let you know how I stand, I've just come from box 618 in the vault of the Associated National. Does that mean anything to you, Jordan?"

He turned and walked deliberately to his desk. He didn't see Conway raise the gun and take deliberate and careful aim at his back. Nor did he see Jordan's warning gesture to Conway. He looked down at the jumbled mess they had made. One of the steel cubes lay close at hand. He took it up and turned around.

"Those notes won't mean anything to you," he said. "I learned, long ago, to put down only the non-essentials. The important information—" he pointed to his temple—"is here."

Jordan's grin turned sickly.

"So that's it. Well, there's only two things left to do. Finish both you and your work."

As if it was a signal, Conway began firing. There was only a slight popping sound. The gun was fitted with a new type silencer.

Wingate began a slow, deadly walk toward Conway. The big man was crouching, as if pulling the trigger took all his strength. Wingate felt the light pats of the bullets striking his sweater —and heard the louder 'splat' as they struck the wall beyond his body.

Conway fired four times. Then as Wingate came closer, Conway circled quickly and began backing away, until he joined the other three at the work bench.

Wingate grinned widely at the horrified expressions on their faces. He

began a slow advance on the group. Von Shieden pulled a pistol from his pocket and joined Conway in firing on Wingate. The sweater held a dozen perforations now. Jordan's eyes seemed ready to burst from his skull. His mouth worked but no words came out. Conway was mumbling indistinctly as he frantically pressed the trigger. Only Erica seemed to have realized what was taking place. In her eyes were respect and admiration.

"You might as well stop shooting," she said in her smooth, calm voice. "Wingate is immune to your fire."

Wingate stopped then, and gave her a slight smile.

"I see you have guessed what has happened," he said.

"Yes. And I think I have the answer. We don't need you any more. We have the lamps, gas and your notes. I can reconstruct the final steps from those," she replied.

Wingate knew then the game was over but for one final play. He made it. His keen eyes had seen that the pressure gauge was at "ten." The lamps were on. And he saw too, that the four of them leaning against the bench had pushed it back several feet. Unknowingly they were in direct focus of the three lamps.

He remembered the gauge was at "eight" when he had read it the last time. Before they even realized his intentions, he was at the tanks, his hands whirling the handles. Ten—nine—eight—seven—six—and he turned to see what was taking place.

ALTHOUGH he more or less suspected what his eyes would see, he felt the hair rise on the back of his neck. The four people had faded away to formless shadows. Even as he watched, the shadows danced for a moment—and then there was only the opposite wall of the laboratory to meet his gaze.

He heard his name called, as from a distance. He turned and saw Marcia in the doorway. Behind her were the shapes of several men. Suddenly there was the roar of thunder in his brain, a vast pounding of blood in his temples, and he fell to the floor.

He opened his eyes and saw Marcia, her face pale and strained, regarding him anxiously.

"Are you all right, dear?"

"Yes," he said getting to his feet. "And you—you're all—"

"Yes. I escaped through the French windows when they ran out after you."

"How did you know to come here?"

"Where else would they come? We've been watching them for months. The only one I didn't suspect was Conway."

"You didn't suspect? What do you mean, my dear."

"I've been watching Jordan for months. The government has had an eye on him. We've suspected him of acting as a clearing house for German agents. I even suspected you. Especially when I found out that Conway was a friend of Jordan's. That's why I stayed tonight after the rest had gone."

"And now, my dear."

She smiled and he knew she no longer suspected him. Her eyes clouded up.

"But where are they?" she asked.

"As far as I'm concerned, they've disappeared into the air," he said, drawing her close.

THE END

BUY MORE WAR BONDS

LARY EVANS sat at the controls of his Superfort. His face was tense with the emotion of this moment. Back somewhere in his plane was a huge volcano buster, the new bomb that could penetrate the earth to a depth that was a military secret.

Ahead and above him were other B29s carrying similar volcano busters, and behind and below him were more. One hundred thousand tons of them. One hundred thousand tons of super explosives to be let loose in a single gigantic, mathematically determined operation so that they would hit the target in the same instant and explode together.

Lary looked at his watch. Seven minutes and ten seconds more. Then his bombardier would trip the little

Let Freedom Ring!

By ROG PHILLIPS

War's end! But what about the peace? What will happen in America in the coming years of change?

Eighty square miles of ocean — a mass of flames engulfing an invasion armada!

lever that let loose HIS load. The navigator spoke to him. Lary made an adjustment of his controls.

One hundred thousand tons of explosives. One hundred thousand, for—Fugi Yama. Volcano bombs for a volcano.

Lary looked down. So far down that it never seemed real was the main Japanese Island. And on it were people. Japs. Stubborn Japs. They were watching him. They were watching all those planes. THEY knew what was coming, too. And they could do nothing to stop it. So they looked up. He knew they were looking up at him. He could visualize that dumb, resigned look. They could do nothing.

Only one man could say the word that would turn Lary and his fellows

back. Only one man. And that man was a Jap!

Two months ago the invasion of the main island of Japan had started and ended. Two and a half million men had died without reaching that island. Two and a half million Americans. Men like Lary. Out of the blazing inferno the Japs had let loose had drifted the blackened and paint blistered hulks of invasion barges, troop transports, battlewagons, and just rafts. On all of them there was nothing alive. Not even a rat.

The invasion plans had been perfect. Only one man had known the day and the hour of landing. Even he did not decide ahead of time. The movements of the invading force had been unobserved by the enemy. The forces were split into three main bodies, converging on three main beaches, and fifteen equal air and sea bombardments on as many different points so that the Japs could not know where the main thrusts would come. All was working smoothly and according to schedule.

Suddenly oil slicks had appeared on the water around the forces—around and in them—and for miles in every direction away from them. The smell of gasoline filled the air. Millions of gallons of it set loose by submerged Jap tanker subs saved for this moment. Gasoline they had denied their aircraft. Gasoline that might have lessened the damage the B29s had dealt to the cities and factories of the Japanese. Yes, they had saved it. For weeks, months, these subs had lain out here with skeleton crews. Waiting.

Flares shot out of the water from hundreds of points and settled back to ignite the gasoline. Eight hundred square miles of ocean was suddenly a blazing hell, and in that hell of fire had died—two and a half MILLION Americans.*

Lary was thinking of them now, as he sped along in formation with his comrades. One man had decreed that hellfire, and that same man could stay this one. A Jap. A Son of heaven.

He glanced at his watch. Too late. NOTHING could stop it now for the lead plane had just dropped its load. In one minute and three seconds he would drop his. The navigator was talking to the bombadier on the intercom. . . .

THE President of the United States paced up and down. Up and down. From time to time he stepped to the microphone near the large mahogany desk and spoke into it. He was pleading. Pleading with a Jap. No answer came. He knew the connection was there because he had talked to Hirohito an hour before. But now there was no answer.

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* It has been estimated by your editors that 3,000,000 gallons of gasoline, released in this manner, could spread out and cover this area of 800 square miles. However, it would be possible to concentrate the fire even more, and three times this gallonage would make a flaming inferno of such a stretch of sea for as much as a half-hour. There are two stories of how such tactics were used in the Battle of Britain—one that the Germans tried an invasion, but British oil on the water burned it to a crisp and cost the Germans 5,000 lives in ten minutes, after which the invasion was abandoned. However, this has been denied, and the alternative story tells how the German Fuehrer deliberately sent 5,000 of his troops into a mock invasion to test the ability to penetrate such oil flames, and learned to his discomfort that an invasion could be defeated in this manner—and apparently he had good reason to believe the British had made such preparations. Is it inconceivable that the Japs have not taken a lesson from Hitler, and fortified their coastline with that gasoline they have not used, as Halsey's fliers can testify is a fact? Maybe Halsey's fliers burned it all in their destructive raids, and maybe they didn't. This story is fiction, but this possibility is certainly not—and reasonable enough to be taken into consideration. It seems significant that there is an answer to the supposition that either the Japs are fools to continue the war—or *they still think they can win!* Is this fictional story a hint of one of the ways they think that possible?—Ed.

He stepped to a second mike and spoke into it. The voice of the Soviet leader replied from a loud speaker.

"No. There is nothing here. He does not speak."

The president looked at his wrist watch. His shoulders sagged as he slumped into a chair. It was too late. The lead plane was just now dropping its volcano buster. And the scientists had figured it all out: Fugi Yama would begin the blast that would sink Japan!

EVERYWHERE on the earth people had stopped what they were doing and were looking at clocks and watches. And all knew that the lead plane was just dropping its load. Dropping its load. Yes. One hundred thousand tons of volcano busters. Dropping into Fugi Yama.

At the rate of twelve hundred feet a second that explosion would travel around the world. Everyone on earth would hear it. They would wait. They would stand around and watch clocks and talk about it. And before half of them would hear it the main island of Japan would be no more.

LARY would be dead, too. He knew that. He wondered what it was like to die as he watched the second hand on his watch, as he saw it finally cross over the zero mark and felt the lurch of his ship as it dropped its load. And somehow it didn't really seem of importance. The mountain below wasn't real. In a moment now it would vanish, and that would be the last thing he would ever see. Did it really matter? No. He had gone to school. He had lived and loved. He had a son and two daughters, conceived during short furloughs. Or had he? Was THAT real?

He followed orders and broke formation. Revving up his motors to their top speed he ran to get as far away as he could. Maybe he could weather it, or so the bigwigs salved their consciences with thinking. It didn't really matter, though.

How many millions of Japs would die? It didn't really matter. This was the last day of the war. And his last day.

EMPEROR HIROHITO stood before a microphone. He looked at his wristwatch. Twenty-seven minutes before the deadline. It was defeat for him and his line. In twenty minutes he would give the word to the world. The world he had dreamed of ruling. He would capitulate. Then he would join his ancestors. He was wearing the ceremonial robes for the hara kiri rites. Yes. It was the end for him. But it was the beginning for his people. He knew that. With the line from the Sun God ended, Japan would become a democracy. In twenty minutes he would die.

At the same instant in another part of the palace were gathered certain Japanese generals. They were all looking at their watches. Suddenly they looked at one another and nodded. Then, lining up before an altar they commenced the rites of ceremonial hara kiri.

The watch of the Emperor was twenty-five minutes slow; these generals had seen to that.

HAVE you ever seen a still picture of a giant, mushrooming explosion? That is the last thing Lary saw. He was looking back and saw it just like that. There seemed to be no motion to it. Just a still picture. Just like in a magazine. Then he died. And his B29 and all the other B29s broke apart.

No one who saw that picture lived

to tell about it. One camera, specially built for the purpose came through and was found months later on a beach over a thousand miles from Japan.

THE President jerked as if in pain as the sudden roar came from the loud speaker, to be abruptly ended as the pressure wave wrecked the Emperor's transmitter.

Everyone on earth heard it at the same instant, and then they all started the long wait until they would hear it in reality when the pressure wave reached them through the air.

The President would never hear that, though. He was dead. A brain hemorrhage had been brought on by the realization of the terrible thing occurring. The second wartime president to die in office and he died the same way as the first!

Tomorrow his death would compete with the death of Japan for first place in the headlines. In an hour it would crowd out all other news. And in a week—well, who can see a week into the future?

* * *

The seeds of the future lie in the present. The seeds of the week following the president's death had been germinating for quite a while and they sprang into growth overnight. In some history books that week is called the period of the American catastrophe. And in others it is called the birth of the nation. Only future historians can tell which it really was.

JAN FORSYTHE closed the book thoughtfully. This was not the first time he had read that particular passage. The history of the Change was fascinating to him. That was the week he had been born. His father had been one of the two and a half million men who had died in the attempt to invade Japan. He had been just a red, bare, newborn babe when the military dictatorship had assumed control of the nation. And he had been just three years old when the military decree was published which said, "Due to the existence of an emergency in national affairs it is hereby decreed by the military staff that there shall be no popular election of any kind until such time as an election will not put the unity of the nation in jeopardy."

Jan was a man now. A man twenty-two years old. In that twenty-two years there never had been an election. The principle instilled in him and all his fellows was that the common man could not choose wisely enough to take part in the choice of government officials. It took an expert to decide whether this man or that was best suited to be president. And only high military officials could have that privilege of deciding who, among themselves, should rule. The "emergency" had never ended. And never would, without revolution.

The door opened suddenly without warning. Jan, from long experience, rose and came instantly to attention. Only an officer of the governing branch entered in that way, and if he did not find the occupant at attention there was hell to pay.

The lieutenant who stood in the doorway was a stereotyped copy of them all. Slim, about five-foot-six, dressed in an expensive uniform, with a cruel, wedge-shaped face, and a perpetual smile of contempt on it that was so carefully cultivated to perfection by those of his caste. His clear, knife-like voice, also carefully cultivated to "conform," lashed out.

"Jan Forsythe?"

Jan answered instantly, putting all the respect into his voice that he could command.

"Yes, sir."

The officer's eyes darted to the table. "What is that you were reading?" Walking over and picking it up he added, "Ah, that is well. You are reading the history of the Change. Never stop reading it. Never. It teaches as nothing else can the evil of war. Before the war it was thought that personal freedom for the individual was the most desired thing in life. THAT brought on the war, and the catastrophes of the Change."

Then, tossing the book back on the table, he turned and looked piercingly at Jan. "Do you know what was wrong with their ideas of freedom, Jan?"

"I think so, sir," replied Jan. "They did not know what freedom meant or what is was."

"And what IS freedom, Jan?"

"Perfect freedom is perfect obedience to constituted authority, sir. THEY thought freedom was the ability to do what one pleased at any time."

"That's right, Jan. And what takes away freedom for the individual?" The lieutenant was smiling now.

"Disobedience takes away freedom, sir," Jan was returning his smile.

"That is correct. Perfect obedience to constituted authority means that you are doing your share in the duties of the people to themselves and the nation, without making extra work for someone else. In return for doing your part without trouble and doing it efficiently, the constituted authority does its part in providing you with everything you desire, consistent with the desires and rights of the others."

The officer slapped Jan on the shoulder in a friendly fashion. "I am glad you are intelligent enough to understand, Jan. If every young man in the nation could understand the truth of that, what freedom really means, we could have elections again. I am going to hand in a report on you. I like you. Perhaps before long you will have an opportunity to enter the military. You are—how old?"

"Twenty-three, sir," replied Jan.

"Twenty-three. You can go far, Jan. I would wager that your I. Q. is exceptional. Who knows? Perhaps some day it will be I who must say 'sir' and you who will say 'Paul' to me instead of sir." The lieutenant opened the door, returned Jan's parting salute, and smiling, said, "As you were, Jan." The door closed behind him.

JAN stood looking at the closed door, an enigmatical smile on his manly face. He spoke softly, answering Paul's last remark to himself, "Yes, Paul. I will have a very high I. Q. Not high enough to arouse suspicion, but high enough to insure acceptance." Then in the same soft tone he asked, "Were you listening, Andy?"

No voice was audible in the room, but from a small tube hidden in Jan's right ear came a voice which he alone could hear.

"Yes, Jan. I heard. At long last we may be getting somewhere."

Jan put on his hat and left his apartment. The elevator took him swiftly to the sidewalk level where he hopped onto a northbound sidewalk. At every block the moving sidewalk slid into coincidence with a stationary square. Two steps put him on the next one which carried him another block. They moved at the constant speed of fifteen miles an hour all through the skyscraper section of New Chicago.

When the army had taken over the government after the death of the president it had at first tried to keep the existing institutions functioning as they were. However, there had been an enmity between the army and the labor unions at the start which, instead of

lessening, grew into open warfare. Soldiers and strikers clashed openly. Strikes were called by the unions merely because the army sent engineers to study plant operation. Antagonism grew so intense that the mere presence of a military man in a plant caused the men to stop the machines and sit down.

Finally, on July twenty-sixth, nineteen forty-seven, the military government pulled its grand coup. In one day it seized the books and arrested the leaders in every union throughout the country and decreed it an act of treason to stop work without written permission of the government authority. Eight hundred men were shot as traitors in the three days following. Then there was no more trouble.

Union dues were abolished by law, and machinery was set up to handle labor and management differences speedily. The army was practical and realistic in its attitude and put good men in the right spots. Unemployment was taken care of by public works. During the last months of forty-seven plans were drawn up for the new Capitol City which was to be located just seventy-five miles east of Chicago and called New Chicago.

Immediately following the abolition of the popular election the new capitol was started, to be completed in one year and three months at a cost of eighty-three billion dollars.

AFTER Jan had gone several blocks he took an escalator to the street level, entered a garage and brought out his car. Soon he had left New Chicago and was speeding toward Old Chicago. Cutting out along Michigan Boulevard he was soon creeping along at forty miles an hour in Evanston.

Jan stopped his car in front of a brick house and climbed out. The door opened as he reached the porch and he was greeted by an elderly woman, slim and youthful in appearance, but with the lines of worry and responsibility etched deeply into her forehead.

"Good morning, Jan," she smiled at him.

"Good morning, Margy," he answered. "Is Linda in?"

"She's down under. Won't you come in?"

Margy held open the door as Jan entered. With the sure stride of one who had been here many times he crossed the living room and opened the basement stairs. In the basement he opened the door of a small closet, stepped in, and closed it behind him. The floor of the closet sank slowly about eight feet and another door appeared. Opening this Jan stepped out into a room about fifteen by twenty feet in size in which several people were busily engaged at various tasks.

His eyes were drawn magnetically to the figure of a slim, blonde girl who was intent on the contents of a filing cabinet drawer. Crossing over he tapped her on the left shoulder and silently stepped to the right. She turned her head to the left and looked up. Seeing no one she straightened up and turned around so that she could see him.

"Oh, Jan. Will you ever grow up?" she said, smiling at him. She was very beautiful, and her eyes caressed Jan with a look that belied her words. "Dad wanted to see you as soon as you came in. He's down on the third level. Come back up as soon as you can."

"O.K., Linda, my little aspirin tablet," Jan said, turning again to the door he had just come through.

Opening the door to the third level he entered a large workshop. In the center, gathered around a complicated setup of wires, meters, and tubes were three men. They were so intent on their

work that they were not aware of his entrance. He stopped to watch them. Here were perhaps the three most important men in the world. The fate of the future generations of mankind rested in their hands. All three had iron grey hair. One was tall, over six feet, the second about five-feet-eight. The third was a hunchback. But one did not notice this deformity. The sense of power and wisdom that seemed to surround his figure was almost a visible thing. Jan felt the old feeling that always came over him when he was in the presence of Linda's father. A feeling that he was unworthy, coupled with a feeling of resolve and determination always to strive to become worthy. If it were not for the humor that was ever present in the eyes of this man Jan would have openly worshipped him. But that humorous glint in his eyes made him human.

JAN'S glance switched to the machine. Above it in the air a glowing mist was forming, apparently out of the atmosphere itself. And in that mist a silver globe was taking shape. Its surface seemed to ripple and swirl in deep, silver-black shades of color. The power that flowed from it beat at Jan's mind like a gale. The globe seemed alive, expanding and contracting rythmically, swaying slightly like a ball floating in the water and bobbing up and down with the ripples on the surface.

Suddenly a red light glowed in the machine. Then a green one. In a moment there were a dozen small lights glowing in various parts of the machine.

The tall man nodded his head and said to the other two, "So far so good. Now we can connect those wires to the robot."

Linda's father noticed Jan then and grinned a friendly welcome.

"Hello, Jan. Be with you in a moment."

"Yes, sir," Jan answered awkwardly. He always felt that he was all thumbs in the presence of these three. But he would have given his life without an instant's hesitation to prevent the slightest harm from befalling them.

He stood where he was as they turned off the machine. The globe vanished abruptly and the swirling mists gradually dissolved into the air again. Linda's father entered the elevator and Jan followed him. Silent, they rose to the first level and crossed the room to a small office. Linda looked up from her file and gave Jan the O.K. signal so universally popular. Forming the thumb and finger of the right hand into an O Jan nodded.

In the office Lindas' father motioned Jan to a seat and seated himself at a large desk.

"Andy tells me our plan worked."

"Yes, sir. The lieutenant was quite favorably impressed. But how did you get him to open the door to MY room, and at that particular time?"

"A little psychology there. He overheard a conversation by two laborers who were berating you to each other for taking sides with the military government in a friendly argument. They called you a cheap tory who was crazy enough to think military rule was what the country always needed. He didn't know the whole dialogue was for his benefit. Naturally he looked you up." Linda's father chuckled. "You will be called before the examining board almost any moment now. Leave your earphone here and anything else that might cast suspicion on you. For one whole year you must forget all about us and be completely loyal to the military government. So far they don't know we exist, and we don't want them

to know—yet."

"That means—?" There was misery in Jan's voice.

"Yes," was the reply. "You can't see my daughter nor communicate with her during that year. There must be no foolish risks taken." There was a sly twinkle in the man's eye as he added, "You might console yourself with the knowledge that it is going to make her as miserable as it does you. You may have half an hour with her before you go. Give her all your effects."

"Yes, sir," Jan answered obediently, and rising, saluted. Linda's father did not return the salute, but watched quietly the broad back of Jan as he left the office and closed the door behind him.

AFTER the door closed he still looked at it. But his eyes took on a far-away look. He was peering into the future, thinking ahead of the day when all men would again be free. Jan was just one of five hundred young men who had been trained from early youth for the task ahead. Twenty-four hours a day, sleeping and awake, their education had gone on. The little earphone hidden in their ears, fleshcolored and not noticeable except by close examination, had droned on, day after day, year after year, stencilling knowledge into the subconscious and conscious minds of these five hundred. They were now being accepted, one by one, into the military cliche, the ruling class. They would go far. Some day one of them would be the Governor General and the rest would occupy most of the positions on the General Staff. Then the military rule would declare itself ended. A bloodless revolution.

Linda's father sat there, and somehow he seemed to change, to grow taller. An aura of unlimited powers and infinite wisdom seemed to surround him; to permeate the room.

A door opened silently at his back and his wife, Margy, entered the room. Silently she seated herself on the arm of his chair and laid her arm across his shoulder, smoothing back his grey hair with loving fingers.

JAN stood rigidly at attention. Across the desk from him were five nattily dressed lieutenants, sharp of features, almost cast from the same identical mold. They were lounging in various attitudes of careless repose, each smoking a cigaret in a long holder. One of them was speaking.

"You have passed the examinations with flying colors. From here you will be taken to the military academy where you will undergo special training. The fact that you have spent your life studying by yourself for the military is very unusual. That, coupled with your remarkable intelligence as evidenced by the I.Q. examinations, will insure your speedy advancement. Good luck, my boy." He arose and held out his hand. Jan accepted it, and shook hands with each of the others. Then, saluting, he executed a perfect about face and left the room. At the door he was met by an aide who accompanied him to the car waiting outside.

He was on his way! He was IN!

THE car sped swiftly along the rubberized pavement, the blocks of buildings swishing past like telephone poles used to in the early days after the World War. In a minute and a half they had covered the seven miles to the entrance to the military academy and drawn to a stop.

Jan and the aide climbed the broad steps to the entrance doors, ten foot metal giants. At each side stood an armed soldier at attention. One of the doors opened as Jan approached it and

he stepped into a long hallway.

This place for the next six months would be his home. During those six months he must sell himself completely. He already knew every fact he was supposed to learn here, but he must appear to study and create the impression that he was a military genius. His was an important and ticklish job. One least hint of suspicion and he would have to go under the mind probe which would reveal every detail of the hidden plot. He opened his mouth surreptitiously and touched the tooth that had been hollowed out months ago and filled with a deadly poison just for that eventuality. Without any emotion connected with the thought he knew that if that time came he would crack the tooth and die.

He knew that he was just one cog and that there were five hundred cogs to the gear that was being hooked into the government machine. But he did not know who the other four hundred and ninety-nine were. It was better for him not to know. That way there could be no special fraternization nor whispered exchanges which might be overheard. Yes, he knew every phase of the plan and its place in the importance of the whole. And he knew that he was expendable.

IN the succeeding six months Jan carried himself well. There were many things he wished he could have evaded, but took them as best he could. "Perfect obedience to constituted authority." Those words were drilled into him day after day.

One day he and his classmates had been lined up at attention. A lieutenant colonel strode in. Saluting imperiously he addressed the group of cadet officers.

"Men, one of your upper classmen has been convicted by the military court of possessing treasonous literature. The court has ordered his execution. You will march to the arsenal and obtain rifles. Forward, *harch.*"

They obtained rifles and marched into the parade square and lined up at attention. The upper classman, a man well liked by all of them, marched across the parade ground accompanied on either side by a guard. He held his head up, a silly smile on his face, as if he couldn't believe this was happening to HIM, and placed his back to the brick wall, facing his executioners calmly.

Without further preamble the lieutenant colonel shouted, "Ready, aim, fire!" The volley of shots rang out. Then the lieutenant colonel ordered, "Present, *harms,*" and went down the line examining each rifle.

Jan had had an impulse not to fire, then an impulse to fire but miss. He had conquered both impulses and aimed for the heart, sensing that this was a test. And it was, for the upper classman rose from the ground smiling when the lieutenant colonel had completed his examination of the last gun.

The lieutenant colonel strode to the front and commanded, "Order, *harms.*" Then he glared at the men, took out his sword and held it in the officer-at-ease position. Suddenly he barked, "James, Rutherford, Browne, two paces forward, *harch.*"

The three men stepped forward. "About, face." Then the three about faced.

Then the officer said bitterly, "Take a last look at your fellow classmen. You are hereby dismissed from the army." They had been the only three who had NOT fired their rifles.

Yes, Jan had carried himself well. When he left the academy he was assigned to bookwork in one of the government offices for a time, then transferred to the Pacific coast.

A YEAR from the day he entered the army he asked for and was granted a week's furlough. Flying to New Chicago he made his way at once to the brick house at Evanston. As he knocked on the door his heart pounding against his ribs so loudly that it almost seemed an unnecessary act to knock on the panel of the door.

When it opened Linda stood facing him. She stared in surprise and then exclaimed, "Jan!" They were in each others arms instantly. The year suddenly seemed to disappear as though it had never been, and suddenly it was just the day after the day he had left.

Finally pulling herself free, Linda took Jan by the hand and led him to the basement elevator, saying, "Dad has been expecting you for days. How long do you have?"

"Just a week," he answered regretfully. "I wish it were a month." Then, "How've things been with you while I was gone, honey chile?"

"Just fine, Janny boy, except—" A frown creased her forehead. "I'll let dad tell you all about it. There's had to be some changes made in our master plan."

The two left the elevator on the first level and crossed the room, so familiar to Jan, to the office of Linda's father. They knocked quietly and then entered. Linda's father was sitting just as Jan had left him a year ago. He arose as they entered and walked around the desk, extending his hand in welcome.

"Hello, my boy. Glad you got here all right. How has the army treated you?"

"Just fine, sir. Glad to see you looking so well. Linda says there has had to be some changes in plans. I hope it's nothing serious, sir." Jan felt his old feeling of awe in the presence of this man. Being a lieutenant in the governing staff did not seem to have affected that.

"That's right," Linda's father answered, a frown creasing his brow. "Sit down, son."

Jan sat down slowly. Linda's father paced up and down for a moment, then faced Jan. "Two things have happened during the last year which we could not have foreseen. One, our existence is now known to the government, but our location and identity are not. So far we are safe, although for how long I don't know. Two, government scientists have finally perfected the method for cleaning the arteries of cholesterol. That makes possible almost immortality. At least a life span of several hundred years. THAT'S all right, but they are planning on using it for the Governor General and his General Staff only, perpetuating themselves in office indefinitely. You know what that means. You and the other four hundred and ninety-nine will never get to first base and our master plan will be a failure."

Jan thought this over an instant and then asked, "What are we going to do, then?"

"I don't know," was the reply. "We have never considered assassination in our plans and we don't want to now, but something's got to be done. Open revolt would mean bloodshed. We have enough followers to insure its success in spite of the army, but we don't want that even as a last resort. You five hundred in the army staff could band together and bring a little pressure to bear, but I don't think that would work. There is a certain instrument we could use ourselves to force the General Staff to do our bidding, but if we slipped up it might mean the end of civilization, so we would consider open revolution before we would consider using that. Damn it. I have thought and thought, but I can't see any answer."

HE started his pacing again. Jan watched him for a few moments, thinking. Then he asked, "How many followers do you have there now, sir?"

Without interrupting his pace he replied, "Over eighty million. A third of the civilian population."

Jan whistled. The figure staggered him.

"Then, considering that better than half the rest would not take sides and the majority of those who did would take your side, why not revolution? There are only three million in the army and only seven hundred thousand of them are officers."

"Because the General Staff has always considered that eventuality and always been prepared for it. Now they are doubly on the alert because they know we exist and are aware of our power." Suddenly the man stopped his pacing and faced Jan, a look of intense emotion on his face. "Jan, there is one way and one way alone that we can succeed now without bloodshed. It will mean almost certain death to you unless we can succeed in time to save you. And I can't even promise that we will try. No, wait." He waved Jan into silence. "I know what your answer will be. That isn't what I want. I want you to listen carefully. Then take a couple of days to think it out. What I want is your opinion on its probable success and some suggestions for improving this plan."

He spoke rapidly for almost an hour. Jan listened, and as the plan unfolded a look of amazement spread over his face. And when the talking ceased Jan's only comment was, "Perfect! It can't possibly fail."

"Oh yes it can. If you are caught before we can do our part it will not only fail, there will never be another chance to succeed. Think THAT over. I will see you here tomorrow afternoon. Meanwhile, have a good time, you two." He smiled in dismissal.

Linda and Jan left the office, a serious expression on their faces. They both realized that the plan was the only one left to them and that it would involve great danger, not only to Jan, but also to them all. How much the General Staff knew it was impossible to guess. That it would be utterly ruthless if and when it was ready to move neither of them doubted. Every army man was inculcated with the absolute conviction that army dictatorship was necessary for the preservation of the country's unity, and would take any steps necessary to perpetuate its hold. Army rule was just and merciful. Every citizen had privileges they never enjoyed under democracy. There was no such thing as poverty and unemployment was unthinkable. The child was observed by trained experts, his capabilities measured by tests and machines so that he could be fitted into the type of work he was best suited for, consistent with the future needs of the community and the nation.

EUGENIC charts were made of every person, male and female, and such was the natural instinct of the individual in the selection of his or her mate that not one couple in ten thousand were barred from marriage. Education was so controlled that not one man in ten thousand ever became dissatisfied with his line of employment. And the medical profession was so controlled that doctors who were not tops in their line swiftly found themselves in some other profession.

Yes, the nation ran smoothly under army dictatorship. A five day work week, ten months of the year, for every able bodied person, with a pension at the age of fifty. Free education for all, and the highest living standard in

history.

Then why this attempt to overthrow the government? Why?

Linda and Jan knew the answer. So did eighty odd million others. Freedom of thought, freedom of press, freedom of expression. And independence. Those were gone. Just as in the old days men grew dependent under WPA, so that they were unable to strike out for themselves, so also under army control men were mere servants. Children learned early to obey because their fathers obeyed. They learned early to accept the decisions of their superiors. They never learned HOW to think. Only to learn well and work well. Perfect freedom meant perfect obedience to constituted authority. What freedom? A man could not start a business for himself until it was permitted by the government. He could not worship as he pleased unless the beliefs he adopted were those accepted by the state. He could not criticize his superiors, rightly or wrongly, because that would violate the principles of military discipline. He could not violate the speed laws because there was a governor on his car.

Freedom is such a subtle, illusive thing. Who can tell what constitutes freedom? And even if someone could, could he say that it is the greatest good? Is not self assurance and self respect more to be valued than freedom?

THE week passed all too swiftly for Jan. In no time at all, so it seemed, he was looking back at the dwindling spires of the Chicago and New Chicago skyscrapers, on his way to San Francisco again.

On his arrival he reported for duty and immediately requested an audience with the Governor General of California. It was granted at once, and he emerged from the Governor General's office with a confident smile on his face. The first step in the plan had succeeded!

Two days later he received his transfer to the offices of the General Staff in New Chicago. There, a week later, he talked rapidly and persuasively before a Staff meeting which the Governor General of all the states also attended. When he finished there were nods of approval from them all. Here was a genius. A master strategist in their midst.

The Governor General himself was the first to hasten forward and shake Jan's hand enthusiastically.

"My boy," he exclaimed, "all I can say is that I would like to know where you have been hiding yourself all these years. It was positively criminal of you to deny us your genius until today. You must have coffee with me this afternoon. In my office at three o'clock sharp."

"Thank you, sir, I will be delighted." Jan did not need to feign pleasure at the invitation. This benevolent old dictator was a very likeable fellow. And how could he know that the plan Jan had unfolded was not his own, but the work of far greater master strategists than any in that room?

And in a room forty feet under a certain brick house in Evanston three heads crowned with iron grey hair nodded at one another in triumphant delight. Their plan was going through without a single hitch. It would take better heads than those on the General Staff to see the flaw in that plan Jan had given them. The flaw that would spell the end to military rule.

Jan left the Staff in high spirits and went straight to his apartment in the officers' club. Opening the door he was startled at the sight of a sharp featured lieutenant sitting with one leg on the

edge of the table, the other resting to the floor, his whole attitude one of careless impudence.

"Come in, Jan," he said, flecking the ashes of his cigaret carefully into the ash tray on the table beside him. "After all, this is YOUR apartment."

Recognition flashed into Jan's brain and with a premonition of disaster.

"Paul," he exclaimed.

"Yes, I am glad you remember me." Paul rose and planted both feet firmly on the floor. Putting his cigaret holder between his perfect white teeth he grinned, his eyes mocking Jan's. "Do you know why I am here?"

"Why, no," answered Jan with apparent indifference, his mind searching frantically for some possible reason. "I am glad to see you. Is there something I can do for you, Paul?"

"Yes," snapped Paul. "I would like to be introduced to a cute little thing called Linda." He grinned again, the grin of a cat playing with a mouse. "I would like *very* much to meet her and—her elusive father." He saw the instinctive movement of Jan's hands and went on hastily. "Oh, I wouldn't do anything rash if I were you, Jan, old boy. You have a lot at stake in this thing."

JAN thought of the little gadget in his ear, and knew that someone in the underground headquarters would be listening in. He must draw Paul out and find out just how much of a threat he was. Matching Paul's own tone now he asked:

"And just WHAT do I have at stake in what thing, old sock, old sock?"

"Ah, that's more like it, old boy. Now you have the spirit." Paul crossed the room and draped himself on the davenport. "You know, Jan, after I recommended you for acceptance into the officers corps and was informed of your I.Q. it suddenly dawned on me that I had fallen for a natural. Oh, I kept my mouth shut. It wouldn't do for me to make a fool out of myself. But I also kept my eyes open. I followed you to that brick house in Evanston, and I have kept pretty close watch on it during the past year. All strictly on the Q.T., of course." He chuckled mirthlessly. "The soul of discretion. Nothing to be sorry for later if I turned out to be wrong. I put a radio cover around the house after a few days. The results were VERY interesting. You would be surprised at the things I picked up. I even probed the foundations of the place with radar. Quite a layout. They shouldn't have used reinforcements in their concrete walls, you know. It shows up quite plainly in a radar probe."

Jan remained silent. As long as Paul was willing to keep talking it was best to let him do so.

"Some things puzzle me very much about that place even yet." Paul frowned in real perplexity. "I kept an equi-selective directional receiver trained on the place from the attic of the schoolhouse across the street. Finally, after several weeks of observation, I kept it at pinpoint focus on the forty-foot level below the house. You know how those receivers can pick up thoughts when on pinpoint focus at full receiving amplification? Well, it's unbelievable, but at times I could pick up thought waves from that particular level which were over twenty million times the strength of human thought emanations! They had the same identical characterizations and were, of course, meaningless. But it is interesting, isn't it?"

Jan decided it was time to do a little questioning.

"Just what is the point in all this, Paul. You must have some object in

playing around like this. Out with it."

"All in good time, my boy. All in good time." Paul was enjoying himself immensely. He lit a new cigaret, taking his time about it while watching Jan fidget. "Let's see, where was I? Oh, yes. About these thought waves. Now there are only two possibilities. Either there is a thought amplifier and projector down there or there is a mind inconceivably greater than any human mind ever known. I am inclined toward the latter viewpoint because the impulses I picked up were not distorted by amplification or carrier waves."

JAN broke in angrily, "Just what do you want?"

"O.K., O.K., Jan. I was coming to that, but if you want to be hasty—This is what I had in mind. My full reports are made out for the year and are in my private box at the bank where no one can reach them but me while I am alive, and there are instructions in the right places for the Staff to open my box immediately when I die. My life is worth quite a bit to—your friends, isn't it. Aren't you glad you weren't hasty?"

"What do you want?" Jan reiterated.

"I have always hoped for a return of the private enterprise system," Paul said, getting up and crossing the room to the refreshment cabinet and helping himself to a cold beverage. Between sips he went on. "What I want specifically is a comfortable fortune when this thing comes off. A comfortable fortune and guaranteed immunity for life. And," he added softly, "immortality."

The tube in Jan's ear came to life and the voice of one of the three said softly to him, "Bring him to the house, Jan. We will see him."

"Assuming what you have said to be true, what good would your threat be after the military government was overthrown?"

"No good," replied Paul. "But the word of your friends given now would be still good. That I am sure."

"Very well," Jan appeared to come to a sudden decision. "Come with me. We'll go out and talk it over with them."

Soon they were speeding out Michigan Boulevard toward Evanston. Jan noticed that several cars kept pace with them. He turned to Paul and asked about it.

"Oh, those." Paul seemed to brush them off as of no importance. "They are just my loyal henchmen. You know. Perfect obedience. They have orders to take the place apart if I don't come out in a reasonable time. Just an ordinary precaution."

Jan's heart began to pound. Paul was no fool. He had spent a year planning this and was a real threat. Suddenly he knew he could not let Linda's father and the other two in for this. Forgotten was the fact that he was the key man in the plot about to unfold. All he could think of was that he MUST end this threat NOW. The car was coming to a straight stretch of pavement. Jan knew it would guide itself for at least half a block. It was his only chance.

As the car straightened out Jan acted. Without warning he struck Paul with everything he had. Paul slumped unconscious in his seat. Jan reached into the glove compartment and closed his hands over his service revolver. Using it as a club he struck Paul carefully and calmly on the temple. Then he spoke, knowing that the three were listening. "I have knocked Paul out. He may even be dead. What do I do now?"

A startled grunt came over the earphone. Then the voice of Linda's father spoke.

"Keep coming, Jan. We will have to think fast." In a moment he continued.

"There is only one thing TO do, Jan. It means taking lives. But it is necessary. Keep coming. When you get here you will be alone." His voice was full of sadness.

JAN kept his eyes on the cars following him through the rear view mirror. As he passed an intersection a large moving van and trailer pulled across the street in back of him, blocking the street effectively. As Jan drove on slowly the sound of machine gun fire could be heard. He did not pause.

In another moment he drew up before the brick house. He carried Paul into the house and stretched him out on the davenport. Paul's pulse was slow, but steady. What to do with him was quite a poser.

Linda's father came up from the basement wiping his forehead nervously with a linen handkerchief. "We will have to abandon this place within the next twenty-four hours. We have at least that long before Paul's safety deposit box is opened." He shook his head sadly. "It's too bad. This has been home to us for twenty-five years."

Suddenly the sound of screaming sirens shattered the still air. They seemed to come from every direction. In thirty seconds the house was surrounded with armored cars and soldiers were closing in, mounting machine guns with apparent unconcern for any danger from the house.

Linda's father calmly spoke two words. "Plan M." Then he turned without haste and motioned the others to follow him.

"We can't go below, sir," exclaimed Jan. "We'll be trapped."

No one answered. They were all too intent on making the basement elevator before the soldiers broke in. Jan had his service revolver out. As they crossed the basement floor to the door of the elevator there was a rattle of boots on the concrete steps outside. Jan sent a shot through the door panel as a warning.

A narrow basement window was suddenly kicked in by a military boot. He tossed a shot at the boot and missed. The elevator door was open now and Linda, her father and mother, and the two house servants were crowding in. Linda was tugging at Jan's sleeve and shouting in his ear, "Come on, Jan."

Bullets were coming in through the windows. They hit against the concrete and hummed as they skipped around. Jan felt Linda's tug and started to back slowly into the elevator. Something hot brushed his side and he heard a sudden, bubbling gasp behind him. At that same instant light was blotted out as the metal emergency door dropped in front of the elevator opening and the elevator started to sink.

Jan turned and felt frantically in the dark. "Linda! Are you all right?"

"Yes, Jan," she answered. "I think Mary, the cook, was hit. Oh, I wish this elevator wasn't so slow!"

THEY stopped at the first level and carried Mary out. It was obvious that she was dead. A large, gaping hole in her throat still welled out red fluid in slow rhythm; as they watched the rhythm suddenly ceased.

Wordlessly they turned and started in on the tremendous task ahead of them. Linda's father was speaking rapidly. "Plan M means the transfer of everything here through the escape tunnel. Jan, you keep out of the way. You will only hinder us. We're rehearsed this many times and can do the whole thing in three minutes and twenty seconds." Suddenly he noticed the red dampness seeping through Jan's uniform coat. "Go sit down, son. We can take care of you in just a few minutes.

These records are more important than your life even, as you well know." The misery in his eyes belied the harsh cruelty of his words.

"Yes, sir," Jan answered weakly. He was feeling slightly dizzy and welcomed the chance to sink to the floor. Linda started toward him.

"Linda!" her father said sharply.

"Yes, Dad." Linda turned back. She well knew that with Mary dead they would be hard pressed to complete their evacuation.

A large section of the wall swung up toward the ceiling, exposing the entrance to a tunnel in which there was a string of flat cars with rubber tired wheels underneath and on either side. These were wheeled out and loaded with filing cabinets and the machines which were being brought up from the two levels below.

An explosion shook the ceiling and caused a shower of plaster to fall on them.

"Hurry," someone shouted. "They'll blast through any moment now."

The last car was loaded and Linda and her mother dragged Jan over and helped him onto one of the cars. Then the string of cars was pushed into the tunnel and the wall dropped back into place.

The lead car was powered by a battery motor, and as the string went bouncing along from wall to wall, riding its side wheels against the wall, an explosion came from the rear, its pressure wave driving the air from Jan's lungs so that he struggled for breath. His struggles caused pain to knife into his side.

Linda, sitting beside his stretched out form, put her cool hand against his cheek and whispered encouragement to him.

The tunnel curved a block from the brick house and went toward downtown Evanston. It came out in the subbasement of a large printing establishment. For the time being the party was safe.

JAN soon found himself stretched out on a cot with Linda efficiently cutting his coat and shirt away from his ribs. Examination disclosed a nasty furrow which the bullet that had killed Mary had plowed in his side. One rib was peeled white for about three inches. The dum-dums which were standard equipment for the riot squads never left clean wounds. Jan fainted while they were cleaning out the damage.

When he came to, Linda's father was speaking. "That raid was too soon after the other to have been caused by Jan's being followed. It must have been some separate action of the army. Anyway our men who handled the machine gunning of the ones following Jan report that they wiped them out. It's too bad. The way it turns out we might just as well have let them come on. Then their blood wouldn't have been on our hands.

"Our whole future course of action now hinges on several unknowns. How much does the army know or suspect of Jan's connections with us? Is Paul still alive? And how much does the army know about our organization?

"Our only hope of success at present is in the General Staff's going through with the plan given to them by Jan, and they may not do so if Jan stays here. But if he goes back and Paul is still alive, it will be suicide for him. At any rate he isn't in any shape to go back yet."

While Linda's father was talking, Jan had been doing some fast thinking. Everything hinged on whether Paul was still living. If he was still alive he had probably told everything by now. And if he was dead—Well, Paul's report in his box at the bank would not be a threat any longer because the army had

already raided the brick house. Perhaps Paul had lied when he claimed he had held back his report. Maybe the General Staff knew all about everything. But one thing was clear. He, Jan, HAD to go back and act as if nothing had happened to him. Take the long shot that the staff was ignorant of his connection with things. That plan MUST go on, even if he sacrificed himself.

And he was equally sure that Linda would not willingly allow him to walk into almost certain death. Neither would her father. But if he didn't, revolution was the only recourse left to the organization of the three. And that would mean the loss of thousands of lives and probable failure.

Jan's mind was made up. Suddenly he remembered his invitation to have coffee with the Governor General at three o'clock. He looked at his watch. It was now one-thirty. He felt of his ribs. They were taped tightly. Aside from a little pain they would not bother him. It would be hours yet before they would become stiff and sore.

He got off the cot and stood swaying for a moment. He shook his head to get rid of the dizziness. Linda rushed to his side and tried to push him back on the cot. He shook her off.

"No, Linda. I don't want any arguments from you or anyone else. Get me another coat and shirt. I've got to get back to the officers club at once. It's the only hope for all of us. Your father just told you that and I am going." He glared at her.

Linda shook her head wordlessly, then went to a closet where a complete uniform was hanging among a hundred other uniforms of every discription. Sadly she watched him dress.

No one else spoke. They all knew that the risk he was taking must be taken. There was no other course.

When he was dressed Linda's father spoke.

"Come this way, Jan. From the basement of the next building you can go up into the back of an ice cream parlor and no one will notice where you came from."

JAN'S heart beat fiercely as he left the taxi in front of the officers club and walked slowly up the steps. But the guards saluted him smartly and smiled, so his fears had quieted somewhat.

Inside he was met by an excited murmur of conversation in the lobby. One of the General Staff officers rushed up to him with a "Have you heard the latest?" and without waiting for a reply rushed on to tell him of the raid, the machine-gunning of Paul's squad in the street, and the finding of Paul's bullet ridden body in the brick house. Even now army engineers were excavating to trace the tunnel as it wound under the houses and streets of Evanston.

Jan excused himself quickly, reminding the officer of his appointment for coffee, and hastened to his apartment. Hurriedly he changed into a spotless uniform, wincing as the movements of dressing sent needles of pain through his side.

Promptly at three o'clock, without a moment to spare, he knocked on the door of the Commanding General's office. He heard the words, "Come in. Come in," so he opened the door. His face was expressionless, but his eyes took in instantly every detail of the room.

The Governor General was crossing the room, a hearty, welcoming smile on his handsome face. An aide was busy at a small table on either side of which was a stiff back chair. The room itself was large and luxuriously furnished.

On the wall of rich, water color wall paper, just in back of the enormous

walnut desk, was a large oil painting of Roosevelt. It was at least four feet wide and five feet high. At one side of the room was a spinet piano. Sunlight streamed in through large, plate glass windows on either side of Roosevelt's picture, and windows along the left wall of the room. It looked more like the office of an insurance company president than a dictator.

Jan returned the General's smile and shook his hand. He more than welcomed the invitation to be seated. He was ready to drop from pain and nervous exhaustion. When they were both seated the General dismissed the orderly and they were alone. Jan remained silent, sipping his coffee and wating for the General to speak.

When the General finally spoke it was merely to remark about the weather. He was pleasant, but his eyes never left Jan's face for an instant. He seemed to be studying him.

Finally Jan set his empty cup back on its saucer and took out a cigaret. The general lit it, looking deeply into Jan's eyes. Then he said, "Jan, I know a great deal about you. I have studied your career in detail."

Jan could not conceal his emotions. Alarm, pain, and the sense of defeat struggled to gain dominance over his features. He started to rise, but the General put his hand on Jan's shoulder and pushed him gently back. Then he rose himself and began to pace slowly back and forth, his eyes resting on Jan's haggard face.

"You don't need to be alarmed," he went on. "I am an old man. And I am very wise. Not smart. Just wise. Wisdom comes with experience. The week you were born I had under my command over seven million men, just like you. The week after, I lost two and a half million of them. Lost them because I was NOT smart. Lost them because a runty, tooth-faced Jap WAS smart. Too smart for his own good. Then I lost my head."

The General's shoulders sagged, and suddenly he looked his age.

"I killed three *hundred* million human beings. Japs. Yes, they were Japs, but they were also human beings. And along with them I sent another twenty thousand of my soldiers to hell in the operation."

HE carefully discarded the cigaret from his holder and lit another before continuing.

"I changed the surface of the earth and wiped out millions of lives. Why? Because I had the power to do so and because I thought I was RIGHT."

"Sir, you shouldn't talk that way. You will regret it later," Jan interrupted, his heart full of pity for this old man.

"Oh, I am not just talking to *you*, Jan." The General smiled, and in that moment Jan realized the General was not just a power hungry dictator, but was a truly great man. "I am also talking to that little hunchback, who is a far greater man than I ever could hope to be, and to his two companions in destiny. Yes, I know they are listening through that little dingus in your ear. I use them, too. Paul had one in his ear. MY plan failed. Perhaps I should have been honest and aboveboard instead of trying subterfuge."

The General sat down and poured himself another cup of coffee with a hand that shook.

"Somehow everything I do seems to result in somebody getting killed. When the war ended and I took over the government, I still thought I was doing right. And I think so now. But I am wise enough to realize that I may be wrong. And if I am wrong I want to know it. I don't want to die wonder-

ing to the last whether I ever did even ONE thing right.

"*I* don't want revolution any more than you do. The plan you presented this morning is a good plan. Too bad it has a flaw in it." The General grinned in evident amusement as Jan started in surprise. "Your plan was based on the premise that our reasons for imposing the military dictatorship upon the people are correct, a premise which you knew the General Staff would agree to without reservation.

"You said that since the people really aren't able to govern themselves, but are discontented because they THINK they are able to govern themselves, the government could eliminate this discontent by proving to the people that they aren't able to govern, and at the same time set up machinery which gives them definite assurance that when they are able to they can. How? By giving them two things which could not in any way lessen our power. Freedom of discussion on certain major issues and a chance to vote on their OPINION of them. A harmless poll.

"Then the results of the poll would be published, the government experts would point out in what ways the majority opinion was unsound, and how superior the opinion of the government experts always was. In this way it could be proven to the people that they did not yet have the right to vote because the majority opinion was usually wrong.

"This plan is perfect in that its workability could not be questioned without denying the premise that the government is always right and the people nearly always wrong. Something no single member of the General Staff would dare to do.

"The flaw," continued the General, enjoying the consternation on Jan's face, "lies in the fact that the three, those three listening to me through your ear phone, of whom you did not think I was aware, control the majority opinion and are superior in intellect to the government experts, so that such a program would in reality show the majority opinion always right and the government wrong!"

THE Governor General was silent for several moments. He seemed to be debating something in his mind. Suddenly he straightened his shoulders, and his face took on a look of fixed determination.

"I have a plan of my own I want to submit. It is a compromise, but one that I think will be acceptable to the three you represent. At least it is better than armed revolution.

"I don't agree that democracy will ever work again the way it did before the world war. The nation is too complex. Do you realize that thirty thousand people were losing their life savings every year on poor business ventures, and that thousands of marriages were going on the rocks, and that hundreds of thousands of people were otherwise ruining their lives irrevocably every year under democracy because they were free to be made fools of and free to do foolish things they should have been prevented from doing?

"Democracy is a blessing from oppression, but as a country grows more complex it MUST become a dictatorship, either of one man or group of men, or of laws and more laws. What is the constitution of the United States if it is not a benevolent dictator? Roosevelt," and here the General turned reverently to the picture on the wall, "tried to lick that dictator, rightly or wrongly. But it was ever there. Inflexible, impersonal, the decree of a democratic people from generation to generation, but a dictatorship over any

one generation. Dictatorship is essential in any highly complex organization, and it is good only if it gives the greatest good to the most people.

"I have tried to do that with my dictatorship. Realizing the weaknesses of a personal dictatorship I had planned to circumvent them by accepting immortality, so that some foolish and inexperienced successor could not undo my work. But eternal responsibility suddenly seems more than I can bear.

"So I offer a compromise to the three. If they will accept, I want them to join forces with the government as technical advisors to the Governor General, and perhaps in the few remaining years before the four of us shuffle off this mortal soil we can iron out our differences to everyone's satisfaction. The dictatorship of a perfect Constitution should be more permanent than one based on the life span of one man."

Suddenly an intensely eager look appeared on the General's face.

"What do they say, son?" he asked.

Jan reached up to his ear and pulled out the small, white tube, smiling.

"They say to give you this," he said, holding out the tube.

IN THE month following, a secret election was held in which eighty million votes, more or less, were cast. The result of the ballot was overwhelming.

It was now late September. The deep strains of organ music were laying a blanket of quiet over the carpet of heads in a large cathedral. Down in front, pigmy-like under the high, cathedral dome was a slim figure in lacy white, surrounded by several figures in trim, military uniforms with gleaming brass and glistening brown leather.

Jan, now a lieutenant colonel, stood beside Linda, looking like an angel in her misty, white halo, and her trailing white wedding gown. At her left, coming only to her waistline, stood her father, a four star general, lacking only the spurs. The foolish grin on his face did not hide the happiness that was in him. Happiness that threatened to well up and pour out through his eyes. But a four star general could not weep, so he stood there with that foolish grin.

On either side of the three were lined up other four star generals, and a middle aged woman, weeping softly into a handkerchief held in a white gloved hand. Supporting her elbow was a straight, athletic figure, his military uniform setting off the breadth of his shoulders. His head, topped with its iron grey thatch of hair, slightly mussed, turned toward the equally tall figure to the extreme right of the group, and, as the words, "I do," were softly spoken, he winked imperceptibly at the Governor General of the United States, who winked back.

« « SCIENTIFIC ODDITIES » »

By LYNN STANDISH

AN AMAZING ANIMAL

MY FRIENDS and I got to talking about camels the other day (animals to you) and I really learned some facts about these strange creatures that I would like to pass on to you.

The modern camel is a most remarkable case of adaptation to environment. The foot consists of two elongated toes, each tipped with a small nail-like hoof. The leg does not rest on this hoof but on the elastic pads or cushions under and back of them. In the Asiatic variety the toes are united by a common sole, thus presenting one broad pad for support on the loose sand of the desert.

The thigh bone is unusually long, and the hind leg lacks that powerful muscular connection with the barrel of the animal which is so prominent a

feature in the anatomy of the horse. In fact, the leg is almost disconnected from the body. In consequence, if the sand under a rear foot of a camel gives away, his body is not dragged down with it as that of a horse would be, unless the other foot also is undermined.

Still more wonderful as an adaptation is the stomach. The camel is a ruminant and chews the cud. Like all others of this order the digestive organ is divided into four parts or chambers. Two of these in the camel are connected by separate passages with the mouth, into one of which the animal sends the solid food it gathers in the field, and into the other the water it drinks, though it has also the power to pass water into either at will.

Both of these divisions of the stomach, but principally the one to which liquid food is generally sent, are provided with a number of pouches or cells in their linings, with muscular walls, and with orifices that can be opened or closed as desired. When water is available in plenty these are all filled to distention, and when the liquid is needed it is allowed to exude and mingle with the solid food, until enough has been provided for the time being for digestive and other bodily functions. By this arrangement a camel can live and travel without too serious discomfort for from five to seven days without drinking.

BERYLLIUM—NEWEST METALLURGY MIRACLE

PERHAPS you have never seen any beryllium, yet you probably have occasion to use it everyday; and it makes a big difference in your comfort, safety and pocketbook.

Your new vacuum cleaner, refrigerator, or thermostat will last four or five times as long as the old one, because of beryllium.

We think of the properties of a metal as being eternal, but all metals get tired under strain. Instruments and gauges of all kinds, in hospitals, laboratories, factories, electric power plants and on ships, use springs and diaphragms made of beryllium-copper. Beryllium is beginning to be used in autos, radios, electric motors—wherever there are higher speeds or exceptional strains.

Beryllium had been discovered as a chemical element and identified as a metal as early as 1827. Andrew J. Gahagan and J. Kent Smith experimented with beryllium in a small laboratory in Detroit.

Since 1929 the price of beryllium has dropped from $200 to $15 per pound and will undoubtedly come down further to meet the popular demand. The ore occurs along scattered localities from Maine to Georgia, in North and South Dakota, Utah, Wyoming, Nevada, California, New Mexico and Arizona. Argentina and Brazil produce beryl and used to supply Germany before the war.

The whole field of research in this metal is pregnant with latent marvels. Used mainly now as an alloy, the pure metal itself has countless untried possibilities.

Pure beryllium is transparent to X-rays, and is used for windows in X-ray machines. The tube of your fluorescent lamp—the closest thing to sunlight man has produced is coated with beryllium oxide. So is the magic screen of new television sets. And Dr. Sawyer has discovered that when kilns are lined with beryllium silicate bricks, the beryllium in some mysterious way imports strength to porcelain.

What surprises the future may hold with beryllium can no more be imagined than Fulton could have visualized an airplane operated from the ground by radio.

VITAMINS FOR ALL

WE USED to think of vitamin deficiency as the curse of people too poor or too ignorant to buy lean meat, milk, vegetables, oranges and cereals which prevent chemical famine. But this deficiency disease pops up among intelligent people with plenty of money to provide the so-called well balanced diet. Many people are listless, forgetful, and jittery, they don't know why but these symptoms have been diagnosed as vitamin deficiencies.

Many doctors watched people develop deficiency disease, tried to find the clues to this riddle.

Our chemists were building crystal-pure B vitamins; their new chemicals—thiamin, riboflavin, and nicotinic acid which soothed the hidden hunger of people in extreme agony of pain, saving them from the verge of blindness as well as rescuing those about to die. But this was only part of the strange power of these magic chemicals. Then the famine fighters began shooting huge doses of vitamins into human beings unaccountably sick but not suspected of malnutrition.

Thus the magic chemicals became more than curative. The well balanced diet, though good, may not be enough. You may eat the best balanced diet in the world, and still be unable to absorb your food; or maybe you can absorb it, but the cells of your body cannot use it.

If you're not feeling well, go to your doctor for your vitamins, do not risk asking the drugstore clerk for vitamin preparations for loss of weight and pep because these symptoms may be the warning signal of a hidden malady.

Doctors can try nicotinic acid on crackpots now referred to psychiatrists. They can test riboflavin on eye troubles which are the despair of eye specialists. They can follow the effects of this or that B vitamin on baffling digestive jangles. At worst, no harm done. At best, another triumph for vitamins.

In the past, science has conferred on those people who have availed themselves of the newer knowledge of infectious diseases, better health and a greater average length of life. In the future, it promises to those races who will take advantage of the knowledge of nutrition, greater vigor, increased longevity, and higher cultural development.

GALLERY OF

THERE were five men in the hut. Four of them sat at a card table near a glowing aero-therm that resembled a small inverted pyramid balanced on its tip. It acted as both heater and air conditioner for the tightly sealed quarters. The fifth man sat before a recording machine, flipped a key and spoke into the transmitter.

"Pole Patrol Number Three. Latitude 71 degrees, 23 minutes, 30 seconds, North. Longitude 156 degrees, 27 minutes, zero-zero seconds, West. May 16, 1992. Captain Robert Gracey reporting—"

"Reporting that his Pole Cats are all in good odor," sang out a tousle-headed corporal.

"These are called Germans," she said. "Date about 1943 A.D."

GLACIAL DOOM

By FRANCES M. DEEGAN

This was the most amazing museum imaginable—specimens of all humanity, frozen in the ice

"Shut up," said the captain absently, referring to a weather chart. "Who made the 7:00 a.m. entry?"

"Jingo Jacklan," said a long, lean sergeant with reckless black eyes. "He had to get out anyway for the early patrol—"

"This," said Captain Gracey harshly, "has got to stop! Just because I'm willing to relax discipline in minor matters is no reason why you fellows should act like you're on a picnic. If Jing—if Sergeant Jacklan made the 7:00 o'clock readings, that means he was an hour late starting his patrol, and he'll cut it short by that much in order to report back here on schedule. That's bad enough! But what's worse, this entry shows a temp reading of 32 below—at this time of year! It should have been reported immediately. Either that thermometer has gone goosey, or there's something radically wrong with the weather!"

"I checked last night," said the tousle-headed corporal. "It was only 21 below."

"Exactly!" snapped the captain. "And for your information, Corporal Dolberg, minus 21 is way below the average for this date. And if we dropped 11 degrees over night—Corcoran! Have the mechanics break out the auxiliary equipment and set it up at once."

"Yes, sir," said Lieutenant Corcoran soberly, putting down his cards and leaving the table. He was a husky redhead with china blue eyes that could crinkle with laughter or open with a blank stare. He crossed the hut, slid open a metal door leading to the tunnel and disappeared toward the hangar.

The captain returned to his recorder, and young Corporal Dolberg leaned across the table.

"What's the matter?" he inquired anxiously. "What does it mean, Slip?"

"It means," said the lean, dark-eyed sergeant softly, "that the captain's sore."

"No, look, I'm serious," Dolberg insisted earnestly. "You lukes are veterans up here. What's so significant about 32 below? I've seen it dive to 50 below."

"You can see it dive way below that without worrying," said the sergeant, "as long as it's the middle of winter. But this is the middle of May. The fact is, the records show that it's been getting progressively colder up here for years. Ask the Finn what that means."

"Skelveg?" The corporal appealed to the somber-eyed Finn, who up to now had been silent, rifling his cards with long, steady fingers. He was a huge, taciturn man, inappropriately nick-named Skallywag by his teammates. He gazed at the sergeant gloomily.

"Sergeant Kelly," he said coldly, "imagines that he is joking. He has heard me answer this question before. It gave him much amusement. He does not believe that something that happened 30,000 years ago could happen again today."

"No, I don't," said Slip Kelly. "Things like that don't happen before your eyes. You're as bad as poor old Devlin and his visions of Snowmaids with bare knees. And look where he wound up—in a psycho mill!"

"I at least have some evidence to support my theory of what is happening."

"I'll never live to see it, and neither will you," said Slip.

"We are seeing it," replied the Finn.

"For sin's sake—what?" demanded Dolberg loudly.

"Shut up," said Captain Gracey automatically from his recorder.

Slip Kelly leaned toward the corporal and leered ominously. "The Ice

Age!" he hissed.

"The—the what?"

"It began about a million years ago," said Slip. "And it's been going on ever since—ice. It glides down from the Arctic and up from the Antarctic and covers the face of the globe. Then it all backs up to where it started from, leaving things very dead and disarranged. It takes thousands of years—and I'm supposed to worry about it."

"Oh," said Dolberg thoughtfully. "But if we knew it was starting again, we might be able to stop it."

"You might," said Skelveg somberly. "If you knew what caused it."

Lieutenant Corcoran returned briskly, rubbing his hands, and picked up his cards. "Who's declaring?" he asked.

"I jumped," said Slip Kelly. "It's the Finn's turn."

The men concentrated on the intricate game of Spanel. Played with 180 cards, the game could last for hours, sometimes for days.

CAPTAIN Gracey continued to murmur monotonously into his transmitter. His weekly report was recorded and picked up by slow transmission whenever the channel was clear. Usually it was relayed promptly. Today, however, he noted with some annoyance that the pick-up signal remained dead. He felt that the information he was carefully tabulating had some importance, and he wondered what caused the delay.

The buzzer on the receiving apparatus blared suddenly, paused, and blared again, as it would continue to do until the key was closed to signify that Number Three station was ready for reception. Corporal Dolberg jumped up and flipped the key.

"Attention Pole Patrol Number Three," said the announcer precisely. "Flight 34—Flight three-four—in distress. Latitude 84 degrees, 26 minutes, 42 seconds, North. Longitude 176 degrees, 30 minutes, 14 seconds, West. Proceed at once. I repeat . . ."

"That dizz-bo!" exclaimed Corporal Dolberg excitedly. "He's off his course." All eyes were turned to the huge relief map against one wall. It was shaped like the bottom of a shallow bowl, and showed the top of the world.

"It's 10:20 now," said Lieutenant Corcoran. "Jingo's due back in ten minutes. No use contacting him unless he's still out—"

"He's practically in," said the captain grimly. "Having clipped an hour. If he'd followed his patrol on schedule, he might have prevented this. Now we've got the sweet job of picking up the pieces. Flight 34 is a three-string freighter." His finger traced the up-to-the-minute data on a traffic chart.

"Out of Dudinskoe," said Skelveg softly.

They all knew what that meant. Dudinskoe at the mouth of the Yenisei River in Northern Siberia was the loading point for shipments of gold and platinum mined in the vicinity. Flight 34 was a lumbering old-style eight-motored transport towing three gliders with their precious cargo. "In distress" meant the pilot had had to sit down out in the Arctic wastes. If he was lucky, the gliders sat down with him.

"We think modern aviation has made such wonderful progress compared to the early days," said Slip Kelly angrily. "But we still have accidents, pilots lose their bearings, cargoes are smashed—"

"They still have accidents in surface transportation, too," said Lieutenant Corcoran mildly. "It's the impatient human element, not the machines."

A mechanic trotted in from the tun-

nel. "Ship Number Two at the ready, sir," he reported.

"All right," said Captain Gracey. "Who's up?"

"I am," said Slip Kelly, heading for the tunnel.

"Don't forget the Kaldine, sergeant," said the captain.

"Oh, for—" Slip halted in the doorway. "Do I have to stop and fool with that stuff now?"

"It's orders," said the captain quietly.

Corporal Dolberg barely restrained a hilarious whoop as Slip turned abruptly and stalked down the tunnel. The rest of the men trailed after him. An application of Kaldine was too good to miss.

Slip reflected bitterly that of all the torments conceived by the devious minds of desk generals to harass the hard working Patrol, Kaldine was the height of indignity.

Still in the experimental stage, Kaldine was a liquid solution with an oily base. When sprayed on the body heavily it quickly disappeared into the pores, and the resultant shock was the same as if thousands of icy needles were piercing the flesh. The victim howled, jumped, twitched and shivered, and had to be helped into his flying suit.

The fliers did not share the enthusiasm of the experimental chemists back home, but orders had come through with the first supply of the stuff two months ago. Not only were the men on the Arctic Patrols to make tests and furnish full reports; but whenever it became necessary to make landings in the frozen wastes, the application of Kaldine was compulsory.

Freight and passenger traffic across the Pole had reached a new high, and international airlines criss-crossed the Arctic in every direction. The high speed strato-express flights were not affected by the cold, but the slower freighters, surveying expeditions and the Patrol service lost too many men each year to the sub-zero cold.

Kaldine was designed to prevent this, the theory being that if a man were conditioned by artificial "freezing" with chemicals which retained their effect for twenty-four hours, the natural cold would not affect him. After the first shock wore off the flesh became numb; but faculties and senses responded naturally and without effort, as long as the subject remained in the cold. At the first contact with warmth, however, he lost consciousness until the effect of the chemicals had worn off, or until he had "thawed out."

SLIP KELLY stood in a plastic tub, gasping and jerking and swearing through chattering teeth as he submitted to the drenching from an electric spray. The stuff burned his eyes and penetrated his nostrils with a sharp sting, while his skin jumped and quivered with the impact of the cold.

An involuntary yowl escaped from his blue lips and he took a swipe at the mechanic wielding the spray. His hand struck the glassite helmet of the grinning man, but he felt no pain. His team-mates applauded and howled encouragement as his angry antics increased.

Five minutes later they had him buckled into an insulated flying suit and were seeing him off from an underground launching pit. His ship was a modern three-engine jet Javelin with retractable wings and interchangeable landing gear. Using only two engines he shot upward with a smooth muffled roar, made a hump stall at 35,000 feet and released the wings. The ship was capable of better than 2000 MPH, ceiling unlimited, and in trips through the outer stratosphere the wings were not

used, except in landing. For his present altitude, however, Slip used the wings and kept her speed down to 1500. The location of the freighter was less than 900 miles due north.

He felt pleasantly numb now. His mind was clear and remote, untroubled by consciousness of his body. The heater was shut off and the thermometer showed 41 below. He thought of the last thing Dolberg had shouted at him as he climbed into the ship.

". . . and if you meet up with any Snowmaids, gay-bo, hit for home! Remember what happened to Devlin!"

Slip remembered all right. He had been on the station six months ago when Devlin was brought in by a geodetic survey party. They had spotted him wandering around near the Pole. He was burning with fever and kept babbling about bare-legged Snowmaids skipping over the ice. He had been missing for three days after leaving the station on the afternoon patrol. His ship was never found. Corporal Dolberg had replaced him, and it was rumored that Devlin was now confined to a government institution.

"Catch me seeing Snowmaids!" Slip thought, coasting down easily toward his objective. "If I do, I'll keep it to myself and change my brand of jet juice."

He located the large, unwieldy freighter on the head, switched on his forward jets to obtain hovering balance and noted with satisfaction that the cargo had sat down neatly. The pilot had used nice timing, braking the three gliders simultaneously. They crowded the tail of the big transport, but had not collided.

He swept over the grounded freighter in a long figure 8, and decided it was a simple job of elevation. It could probably be accomplished before the brief Arctic day ended. The Javelin was built with a bomb bay, but the Patrol service used it for hoisting mechanism. Exerting a powerful, balanced forward and backward thrust from its jets the sturdy Javelin was capable of hovering over a point near ground level. By securing tough magneto-cables fore and aft of the big transport, the Javelin could act as an elevator, using a long dragging lift that would bring the crippled plane up in a normal take-off, and hauling the gliders with it.

SLIP drove the Javelin up in a wide spiral and back-tracked for fifty miles in order to make his landing. It was odd, he thought, that the wreck was so neat. Safety devices usually prevented a complete crack-up, but a forced landing on the deceptive-appearing ice should have resulted in some damage. He set the Javelin down lightly on skis, but the ice was much smoother and faster than he had anticipated, and he shot on past the freighter fighting for control and fearful of smashing into the jagged ice peaks ahead.

Like a fool, he had shut off the forward jets simply because he liked to make a fast landing, relying on expert manipulation of the brakes. Now it was too late. The sudden powerful thrust of the jets would send the ship somersaulting backward, and there was neither time nor space to calculate the balance required and switch on fore and aft jets simultaneously. He did manage to retract the wings safely before the ship plunged into a deep gorge with green ice walls, and then he was on a toboggan shooting down and down and . . .

The ship came to rest in a vast, dim ice chamber. The light was unreal, giving an underwater effect, and there was an eerie beauty about the grotesque vaulted reaches of the place.

"I'll be damned!" said Slip. "Now how in the hell am I going to get out of here without melting everything?"

He climbed out of the ship and walked to the nose. There might be enough room to make a turn, he decided. But what would happen when he turned on the jets? It would be like aiming a thousand blow-torches—at ice!

"Huh-uh!" he said. "Here's one time I *don't* take a chance. This luke is going to call for help."

He started back to the cabin of his ship, but he didn't make it. Coming toward him from the grottos all around the big chamber were . . . people. Female people. Blond female people. Undressed blond female people. They looked nice. Very nice. They looked like they were heading for the beach in bright colored, abbreviated bathing suits. They looked very happy about it. They looked . . .

Slip closed his eyes carefully and talked to himself. He said, "Watch yourself now, luke. It's probably the ice—makes illusions. You know how it is when a luke's on the desert and sees a mirage. Well, ice does the same thing—"

Something cooed at him and he opened his eyes. It was a blonde. She had pale blue eyes and snow-white skin. All around him were other blondes. All kinds of blondes. A lonesome man's nightmare.

The cooing blonde said, "You are American."

Slip did not deny it. Instead his arms shot out in a savage grab, like a man expecting to clutch air, and thereby satisfy himself that the thing in front of him was only a shadow. The shadow returned his embrace enthusiastically, squealing with delight, and her companions crowded around chattering and laughing, like—well, like blondes.

ALTHOUGH Slip's flesh was numb with Kaldine, he knew the arms around his neck were squeezing tightly because he had trouble breathing. He looked into blue eyes and wondered vaguely what to do next.

"I am Riva Sklarsdatter," confided the friendly blonde. "How are you called?"

"I am Kelly," said Slip. "And what the—What goes on here?"

"Kel-li?" said Riva experimentally. "It does not sound finished."

"Kelly is not finished—I hope." declared Slip. "What are you doing here?"

"We keep the gallery. We shall arrange you in the gallery. You will like that?"

"I don't know. I'd have to see it first."

"Very well." Riva released her strangle hold and took his hand. "Come. You shall see how fine it is. You will last forever, though all else be gone."

Riva's companions started up their chattering again and she silenced them, giving orders in a strange tongue that sent them skipping off in all directions. Four of them followed her as she led Slip into an irregularly shaped grotto that extended for some distance into the ice.

It was darker here and Slip had difficulty with his footing; but Riva strode along confidently. She was wearing odd transparent pink boots to match her costume. They fit snugly and looked like a composition of glass and rubber. The costume itself, what he could see of it, looked like spun glass softly molded to her body. Her pale blonde hair was caught up in a heavy loop at the nape of her neck.

"Are you Scandinavian?" Slip inquired.

"No, Kelly."

"What nationality are you?"

"None."

"All right, but you must have come from somewhere."

"Yes. Halla. Which you have misnamed Uranus."

Slip digested that carefully. It was not impossible. Earth ships made round trips thousands of miles into space. Five ships had been dispatched to the moon, but nothing had been heard of them.

Uranus, at its nearest point, was a little better than 1600 million miles from Earth. Calculations indicated that the surface gravity was the same, although the light was much dimmer, and the temperature was estimated to run from 300 to 400 below. It was not impossible, but . . .

"How is it that you speak English?" he asked.

"We are each required to learn two Earth languages," said Riva. "In order that we may keep the records of the Gallery. I have English and German. Also some Eskimo. It is well?"

"Very well. How did you learn them way off there on Uranus?"

"Halla," Riva corrected. "We learn many things about your Earth. Always there are watchers here, absorbing knowledge and transmitting it to Halla. Since many thousands of your short Earth years. All this I am forbidden to tell you."

"Uh-huh. Blondes, it seems, are the same all over the universe. What happens if you get caught telling me?"

"I do not intend to be caught, and it does not matter what I tell you because you will remain in the Gallery. Our relief ship is long overdue. It is becoming very tiresome here. Therefore, we have disobeyed orders and opened the big door to the surface. We must have some amusement. And only one Earth man got away."

Slip stared at her in the dusk. "Got away? How was that?"

"We used the magnet to bring his little ship down. A ship like yours. But the ship came in too fast and crashed. We tried to revive him with a drink of Klava. It made him wild. He leaped up and disappeared. Klava does not have that effect on us. It is too bad, but he is surely frozen by now. How is it that you are not frozen?"

"Me? Oh—Oh, I guess I must be part polar bear." To himself Slip was muttering: "Devlin! It was Devlin who got away . . . and he's not crazy, because I'm not crazy . . ."

He said, "This magnet—is that how you brought that big freighter down?"

"Yes," said Riva. "We managed that one much better, but it is too big to bring in. We shall have to break it up."

"What happened to the crew?"

"They are already in the Gallery. You shall see."

THEY had been following a winding corridor through the ice, and now came out into another vaulted chamber with smooth ice blocks arranged in rows. Riva's four companions left them here and entered another corridor.

"They go to fix the other Earth man, and to prepare for you," Riva explained. She went toward a pink, glass-like plate set into an ice wall and touched several small knobs. A cold, green glow began to spread through the chamber, and Slip was staring in amazement at the huge ice block in front of him.

Twelve men in various attitudes were encased there. Two of them wore old-style fleece lined flying suits and helmets. Three wore gray-green uniforms and black boots. The rest were in different stages of undress.

"These are German," said Riva,

reading from a panel set into the ice. "Comparatively recent—1941. They were part of an expedition which tried to set up an air base in Northern Canada. They were having a war with other countries. Unfortunately they lost the war. The exhibit would have been more valuable if they had won, but nevertheless it is a good group."

She led him to a smaller ice case where two hard-bitten prospectors and an Eskimo guide were reposing stiffly. Further on was a lone man with a dog team, and next the five crew members of the grounded freighter, freshly encased in an ice block that had not yet been smoothed. A temporary metal track and cables showed how the block had been set in place. Slip was silent, trying to grasp the full horror of what he was seeing—a kind of cold storage museum of natural history, with the specimens lured to a frozen death by blonde Lorelei.

There were nearly fifty cases in all, and he looked at all of them, as Riva babbled on like a lecture guide. The exhibits extended back into ancient history, and included bearded Vikings in short robes, dark skinned Mongols in furs, and other strange races which Slip did not recognize. He came out of his deep wonder abruptly when Riva said, "We shall put you and the other man there. It is a splendid thing. You shall be immortal, while all the rest of your Earth civilization is destroyed."

"I don't—" Slip stammered. "Destroyed?"

"Yes," said Riva calmly. "The ice is once more being driven across the Earth. Then it will be allowed to recede, a little at a time. In this way we obtain our cultures of plant and animal life. Our planet is incapable of producing them, but they can be transplanted to our four moons and bred there in the domes, with artificial light and oxygen. However, the cultures die out and must be renewed at intervals. Only on your Earth have we been able to create the proper conditions for the type of cultures we require. They must be able to withstand our cold and give us the heavy nourishment we need. By freezing the Earth and gathering the first cultures of new life as the ice recedes, we are able to supply our dome laboratories with enough potential plant and animal life to last us for many thousands of years."

SHE moved closer and put her hands on the back of his neck, smiling gayly. "But you, Kelly," she cooed, "you shall remain as part of the record of your civilization. Are you not grateful?"

"Oh, yes indeed!" said Slip, pulling her closer. "Tell me—how is the ice driven?"

"Oh, that is a very dull business," murmured Riva. "It is done from our giant space ships, one at the North Pole and one at the South. The heat of the sun's rays is deflected gradually, so that it grows warmer toward your Equator and colder at the Poles. Thus mass currents are set up in your atmosphere and the cold moves forward and the heat is driven upward and dissipated, while the ice increases and spreads. It takes a long time."

"And how is it, my little snowball," said Slip amorously, "that these giant space ships have never been seen. Our ships have penetrated space for thousands of miles around the Earth."

"They are sometimes troublesome," Riva admitted. "But there are scout ships all about our big liners, able to detect an approaching ship before it comes into sight. At the first warning the liners move until the clear signal is given. It breaks their contact with our magnetic field here, and then the

engineers have to come down and set it up again." She sighed expressively. "We have good company then—for a little while."

"What is this magnetic field, darling?"

"It is a metal from Halla. Thousands of tons of it are stored below us here. It is charged by electro-magnetic machines and the force directed at a point about 250 miles overhead where the liner makes contact. It is the source of the power for the equipment which deflects the sun's heat, and also acts as an anchor for the liner. The metal —Hisen, has very little effect here on Earth, but you can sometimes see the effect of its contact with our bit ships. You call it the Aurora Borealis and Aurora Australis."

"If it has that much force, why does it have so little effect on Earth?"

"Because the Earth is too warm. Warmth destroys the force. Hisen is explosive. The slightest touch of heat would send the whole mass up in a final burst of energy that would explode at the terminal, that is, the liner. But there is no danger of that."

"That's what you think, my cold little potato," muttered Slip, and kissed her.

"O-oh!" she gasped, and closed her eyes. Slip quietly strangled her.

He eased her limp body down carefully against an ice block containing savage looking Oriental warriors and stepped away. He found his way back to the case with the German fliers and to what he thought was the corridor leading to the entrance and his ship. Instead he found himself in a smaller chamber with strange mechanical equipment, and what looked like a laboratory set up in one corner.

Two halves of a large ice block stood in the center, each half partially carved out to make room for another exhibit. Slip ground his teeth savagely, realizing it was intended for him. For him and—he suddenly remembered that Riva had mentioned another Earth man. And then he saw him, sitting in a seat that had been taken out of his ship, one arm extended stiffly, forever reaching for something.

"Jingo!" croaked Slip, and started toward his team-mate. But Sergeant Jacklan was quite dead and stiff.

SLIP whirled at the sound of running feet, jerking out his pistol. The four blondes who were supposed to preside at his and Jingo's interment faced him with startled blue eyes. He raised the pistol and shot them down—one, two, three, four—like sitting squabs, and raced back to the Gallery.

This time he looked for the pink plate with the lighting controls, and from that located the exit corridor. The pistol shots had sounded dull and muffled in the ice chamber, but the alarm had been given. He could hear faint cries and pattering feet reverberating in the eerie caverns. His frightened feet carried him swiftly along the winding corridor and he burst into the huge entrance chamber just as the first of the blondes were emerging from the surrounding grottos. He fired wildly and they paused in bewilderment.

Slip skidded the last few feet to his ship and vaulted in, slamming the door and pressing the automatic sealer at the same time he hit the jet controls. Chaos ensued as flame shot from the fore and aft jets. The screaming blondes tumbled over each other, trying to escape back into the grottos as Slip put the Javelin in motion. The ship could be maneuvered on a dime and he soon had her whirling around the vast chamber like a pin-wheel, scattering blondes.

The ice was melting, running toward

the inner grottos opposite the wide entrance. That meant the grottos inclined downward and Slip brought the ship to a standstill facing that direction. He shut off the rear jets and directed all his power forward. The grottos, three of them were quickly enlarged, walls disappeared, and they became one big yawning mouth with dripping jaws. Cracks appeared and widened into running fissures that spread upward.

Slip had not paused to think. He only knew he wanted to destroy that magnetic metal, that he had the means to do it, and that he would certainly be destroyed with it. Now, however, he began to consider the matter more objectively. There was still the base at the South Pole, and if he vanished in this blow-up, no one would ever know exactly what had happened. The South Pole base would remain intact and the Uranians would eventually set up another one at the North Pole.

He flipped on his radio and put in a priority call for Pole Patrol Number Three, meanwhile giving the rear jets a short blast to move the ship forward. The water was reaching the center of the chamber now and the ship moved through it sluggishly. He got the go-ahead promptly from the Patrol station and asked for the taciturn Finn.

"Yes, Kelly," came Skelveg's heavy voice.

Slip knew that the Central station as well as all the men at Pole Patrol Three were listening in. He knew that nobody would believe him—except possibly the gloomy Finn.

"I asked for you, Skallywag," he said carefully, "because I need help and you're the only one I know who'll listen and act without asking a lot of damn fool questions that I haven't got time to answer. You've got to help me convince Captain Gracey that I need you, and I need a case of incendiary explosives. You've got to get his permission to leave right now, because—listen! The Ice Age is no joke! You were right all the time. It's happening right now. I know what's causing it. I know how to stop it. Central station has my location. Will you come?"

Central station broke in excitedly: "Attention Pole Patrol Number Three! Special orders! Special orders! Please stand by . . ."

IN A moment the voice of the commandant came over briskly. "Sergeant Kelly! Just one question. You say you know what is causing the change in meteorological conditions. What is it?"

"Sir," said Slip angrily, "I'm sitting on it! It's a controlled magnetic field operating to deflect the heat of the sun and chill the atmosphere progressively. If I tried to explain how it operates, you wouldn't believe me. But I can prove it because there's another one at the South Pole. With your permission, sir, I'd like to blow it up first and tell you about it afterwards."

"Permission granted," snapped the commandant. "Captain Gracey, give this man everything he wants."

Slip heard a faint whoop from Corporal Dolberg and then Captain Gracey's voice came in quietly. "The men are on their way, Sergeant. Be with you in half an hour. Is Sergeant Jacklan with you?"

"Yes, sir. But he's—He didn't use Kaldine."

"I see. All right, Slip. Bring him in with you."

"Yes, sir."

Slip let out his breath and shut off the jets. A wide black hole confronted him, but obviously the heat had not touched the Hisen. The sick blondes had all vanished. He unsealed the door

and climbed down into knee-deep water. The footing was treacherous, but he waded across the chamber to the Gallery corridor. The water froze solid before he reached it. The gallery was still lighted by the cold green glow. Everything back here was still intact. He went toward the embalming chamber to pick up Jingo.

THE hut quarters of Pole Patrol Number Three was crowded. The commandant was present, and better yet, a marvelously restored Devlin.

"Well," the commandant was explaining, "this fellow finally convinced us he wasn't crazy. We had been quietly working on the weather data for some time, and had just come up with the solution—deflection of the sun's heat. But we had no idea how it was done, or what was causing it. They tell me you fellows set off some pretty fire-works."

"It was pretty, all right," said Lieutenant Corcoran. "But it scared us silly. We expected an explosion. What we got was a super-tornado in technicolor—all confined within strict limits, you understand, sir. The force was aimed along certain channels and that's where it stayed. It lasted nearly an hour. And imagine Kelly here sitting on top of it and firing his jets at it. If he isn't a fool for luck. He stopped just in time."

"It was more than fool's luck," said the commandant. "It was damn fast thinking. I expect Sergeant Kelly will get a promotion out of it, and you can all expect to be decorated. Too bad about the crew of the freighter, but I'm glad you took the time and trouble to salvage the cargo. Er—Sergeant Kelly, would you mind telling me again about those blondes?"

WHEN THE SUN STOPS SHINING

By PRESTON DAVIS

IT IS difficult for us to imagine what our own Universe would be like without the friendly, warming sun beaming its energy-giving rays toward the earth and her sister planets. Yet it is true that we are slowly, but surely, losing Old Sol and man of the future will have to reckon with this loss. According to scientific estimates, our sun, in the first billion years of her life, shrank to one-fifth of her size. Even now she is radiating away 360,000 million tons each day; though this rate is a marked decrease in contrast to earlier times.

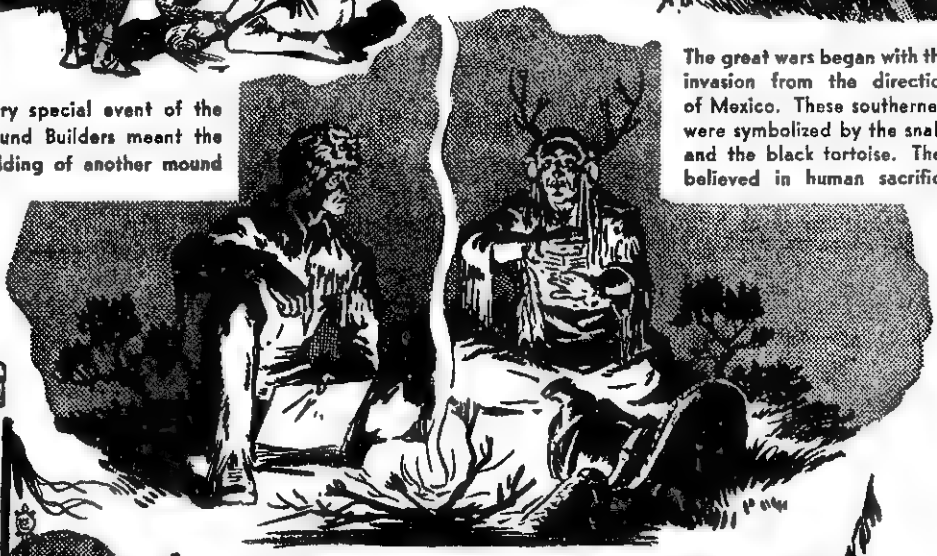
This amazing conception opens up a startling prospect for the earth. Any appreciable shrinkage in the sun's weight will weaken the solar gravitational hold on the earth. As the sun's grip through gravitation becomes less powerful, the earth moves out on a wider orbit. It is believed that the sun's loss of weight is causing the earth to recede from it at the rate of about a yard a century, so that after a million million years our globe will be about 10 per cent further away from its source of light and heat than it is now. Sir James Jeans calculates that as a result of this recession, the earth would receive 20 per cent less solar radiation than it does now, even if the sun radiated as much light and heat then as it does now, and its mean temperature would be some 15 degrees Centigrade lower. But after a million million years the sun will have lost some six per cent of its present weight, and this loss will probably reduce its energy generating capacity by about 20 per cent. Jeans explains that this will reduce the earth's temperature by about another 15 degrees. So it seems that after a trillion years, the inevitable course of events will have reduced the earth's temperature by about 30 degrees Centigrade.

But even more recent scientific investigation proposes that this Universe will lose its sun, not by a gradual process of disintegration, but by one violent eruption. Old Sol will change cataclysmically into a minute "white dwarf" star and the planets about it will respond to this change just as violently. There will be a fall in temperature too rapid for life to survive anywhere in our solar system and too great for new life even to get a foothold.

SCIENTIFIC

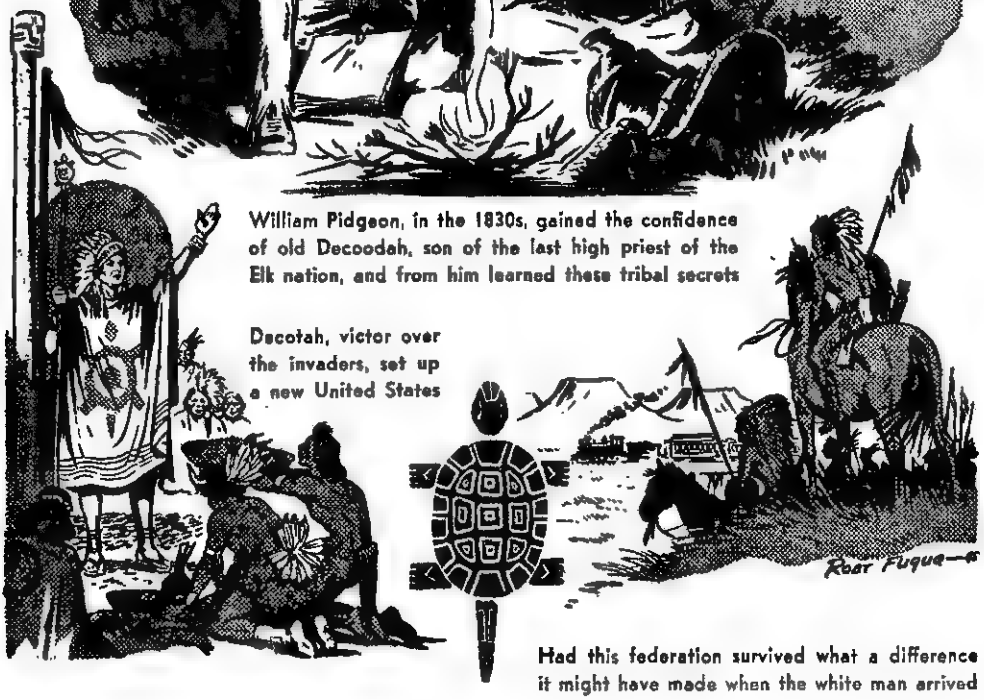
Every special event of the Mound Builders meant the building of another mound

The great wars began with the invasion from the direction of Mexico. These southerners were symbolized by the snake and the black tortoise. They believed in human sacrifice



William Pidgeon, in the 1830s, gained the confidence of old Decoodah, son of the last high priest of the Elk nation, and from him learned these tribal secrets

Decotah, victor over the invaders, set up a new United States



Had this federation survived what a difference it might have made when the white man arrived

MYSTERIES

THE BLACK TORTOISE

By L. TAYLOR HANSEN

The amazing story of the Black Tortoise discovered by one of the few men who was friendly toward the Indians

PERHAPS once in a lifetime, if one has the hobby of haunting old book-shops, one finds the book for which a thousand archaeologists and museums have been searching. Such books are the rare copies of Brasseur de Bourbourg, Ximenez, Las Casas, Montesinos, and possibly that treasure of all treasurers—one of the lost Codexes which escaped the fanatical conflagrations of the conquering whites! Imagine finding such a Codex as the travels of Votan, which is the dream of every Amerind archaeologist! (Although this volume was burned, or reported to have been burned, one wonders if the Bishop who first had it read to him, did not relent and allow it to slip away, since Brasseur and others described it.) And almost always, also, because the book-seller does not have the remotest idea of the value of the old volume, one obtains it for a fraction of what one must pay for a better-known book, which is not as rare and therefore less important.

On just such a lucky afternoon, poking through the shelves of a shop I had never before discovered, I pulled out a curious old volume, blew off a thick cloud of dust, and inquired the price. Together with several other books, some of which were given a much higher value, I started home, but it was not until I began to study my new acquisition, several nights later, that I realized the good fortune which had befallen me.

Under the heavy, out-of-date, gold-embossed cover, I found myself pursuing the fascinating story, through the yellowed pages, of a young man named William Pidgeon, apparently a surveyor, who during the 1830s had provided himself with "rifle, tomahawk, and blanket" and had turned his face westward through the wilderness into that almost unknown land which stretched between the long Mississippi River and the setting sun.

Being a sort of trader by profession, and a surveyor by choice, he became intrigued by the size and arrangement of the Mounds, as well as by their evident antiquity, since he saw that they carried an ancient forest. Finally becoming possessed of the notion that they were the relics of some strange, or peculiar people who lived on the American shores before the Bibical Deluge, he began to survey them. Under the circumstances, it is extremely fortunate that he did not allow his imagination to run away with him, and that he was still scientist enough to faithfully record, the magnificent gems of information which it fell to his lot to hear, even though they must have seemed tame beside, and at times contrary to his own wild theory.

For some time he had been in the habit of staying at various Indian villages, taking with him from one to another, one or two interpreters, as he walked around the "earthen works," and wrote down his findings. On one such occasion, when he was staying at the lodge of an Algonkin chief, his host brought to the fire a venerable old Indian who had come some distance to look upon the young white man who was copying the relics of his ancestors upon "talking paper."

During the smoking ceremony of introduction, in which young Pidgeon committed some, to the Indian viewpoint, social errors, the two men were drawn together by a close bond, when various young Algonkins burst into mirth at Pidgeon's lack of Indian etiquette, and were soundly rebuked by the elderly visitor. Then after an appropriate interval, the venerable old man asked the inevitable question: why was the young white man making pictures of the monuments? Especially so, when other white men were destroying them as their curiosity, greed or convenience dictated?

Pidgeon replied that this was the very reason he was surveying them. He was hoping to bridge the generations of the destroyers to a future time when cities may be flourishing over what had once been the relics of a by-gone civilization.* The old man nodded slowly as he said: "The red man's friend."

When the elderly visitor had been handed copies of the mounds which Pidgeon had surveyed, he could not only tell their size and location, but immediately informed his young friend of the missing parts of the structures which had long been obliterated by the weathering effects of erosion or man's destruction. Pidgeon, greatly impressed, asked the old Indian to guide him along

**Chicago has been built upon a rich Mound-builder site.*—AUTHOR.

the Black River, in his planned survey of the second terrace, and the offer was immediately accepted.

Thus began the intimacy in which the older man tested out his friend of another race before at last giving him the precious traditions which he would have ordinarily reserved for the son who had died while attempting to hold back the white invasions. The conversation during the expedition was composed of incidents in the lives of both men, but upon the subject of the past, the old man was silent.

TWO or three months after the men had met for the third time, the venerable sage revealed that he was Decoodah, son of the last high-priest of the extinct Elk Nation, and that he had decided after much thought also to bridge the generations of the destroyers. He had come to realize that the young red men no longer cared for their ancient traditions. With some heat, he said proudly, scornfully:

"Where they were once sober and industrious, they are now drunken and lazy. They have lost their traditions and care nothing for the times of their fathers. Of all I know, only you show an interest . . ."

Then charging Pidgeon to record faithfully what he was about to tell of the past, he began to talk.

Through the night and into the grey light of dawn, I read the story of the last high-priest of the extinct Elks, inwardly bewailing the fact that the narrative seemed to be confused at times probably due to Pidgeon's inability to understand clearly all the fine shades of meaning of the Indian tongue, as well as the fact that the death of the elderly narrator undoubtedly held up much clarifying detail. Yet imperfect a thing as it was, it was like suddenly finding a door upon which I had been vainly pounding, suddenly swung widely and silently open! I was looking down a vista I had perhaps vaguely suspected but had never hoped to be able to see! I read on and on as the old man whose life could never have touched mine, began to tell the story of the past.

Thousands of years ago, but the dates had long since been lost, the Nation of the Elks lived in peace with their neighbors, The Bear, The Buffalo, The Great Red Lion and others. As he did not list them, one only heard about them as they entered at one time or another the later picture. They had cities fashioned of wood. The temples were built upon earthen mounds and were carved and painted from the sacred cedar and cyprus logs of the forest. Between the cities lay broad cultivated fields, which were connected by roads. Trade was carried briskly up and down the rivers. In these days the religion was a fine, clean thing and human sacrifice was unknown.

When one of their cities wished to celebrate an unusual event in its history, it cleared a space and piled up the appropriate mound, sometimes crowning it with the appropriate building. Old mounds were never destroyed, and thus the city grew from the center, and its recorded history grew from the center. The capital city carried the recorded history of that nation. Thus, Decoodah explained, as he picked up the survey sheets from Cassville, Wisconsin, here was the story of an ancient capital. Reading from the center outward, we have the story of ninety-six sovereigns from six dynasties, or a history as long as that of England.

THE first great resounding conflict came when these nations were invaded from the south. Two Totems were entering but one was in the lead, and with them came the terrible Fire-god and the spectre of Human-Sacrifice. The Southerners who burned the hearts of their enemies in the cauldrons of their Eternal-Fire, were The Snake and The Black Tortoise. The Black Tortoise had not always been a nation of Sacrificers. They had been converted by The Snake, and now they were ever pictured as at the Snake's head, or as the high-priest of the Snake-God. The invaders came up the Mississippi from the direction of Mexico.

The Elk and her allied neighbors resisted fiercely. The lands of the lower Mississippi became bloody battlefields as the defenders were driven back, and at last the Black Tortoise besieged the Ancient Capital. When the Capital fell, a truce was called, and The Black Tortoise made peace with the Elk, Eagle, Bear and the other allies while it turned its attention to consolidating its gains.

The Northern Allies went back to their respective homes. The nations on the eastern side of the Alleghenies who had been protected by their geographical position from the thrust of the invasion, took in many of their homeless kindred, and the main capital of the Elk Nation was removed from the vicinity of the junction of the St. Peters and the Mississippi Rivers to the region of Wisconsin-Michigan.

Decoodah fails to state the exact location of this new capital of the Elk Nation. Pidgeon describes a "series of earth-works covering forty acres" somewhere "near the junction of the Mississippi and a small stream called the Bad Axe in the state of Wisconsin" before Decoodah communicated the bulk of the ancient history to his young white friend. According to Decoodah's hieroglyphic reading of the mounds, this recorded 12 monarchs, 16 chiefs and forty-four tribes. Now taking for granted that the sixteen chiefs ruled under the monarchs, possibly two at a time, the length of the history of this city-state would be the length of twelve monarch's lives. This would be the time between the first invasion and the last dispersal.

On the other hand, the scene of the capital of the ninety-six sovereigns may have been the second metropolis of the Elks. Or, what is even more probable, that the earlier capital was followed first by the city of the ninety-six sovereigns and then by that of the twelve, since these are both calendrical numbers, of which their cycle apparently was twelve. Thus the cycle of twelve having been

completed to the magic number of eight times (a hint of an earlier Venus calendar?), the metropolis was removed to a new site and another cycle completed before the tribe decided to give up the increasing difficulty of city-life in the face of multiplying tribes of enemy raiders.

If this method of figuring the Elk History is true, then a period of time elapsed between the first invasion and the last dispersal equal to many of the time-lapses for the old world, for by taking even such a conservative estimate for a single reign as a twenty years average, we would still have the Ancient Elk nation reigning for over two milleniums in its northern homeland after the first invasion of The Black Tortoise.

THOUGH Decoodah's lack of explicit information beclouds the interval between what he terms the first and second dispersal, he is very definite from this point. He states that during this time of peace, the Black Tortoise conquered many of the nations toward the far west, invading territories which had never belonged to the Nation of The Elk.

Now also, he first gives the name of the clan the connotation of a supreme office as well, and apparently the word "Black Tortoise" has become the title of the ruler, who held supreme reigns over a vast and rich empire. From Decoodah's figures, this empire was in its height during the eleventh century of our calendar.

Then came the Great Rebellion which was in turn followed by the Second Dispersal, which took place during the twelfth century of our calendar, or over six hundred winters before the life of the lonely old man who was the last high-priest of the extinct Elk Nation.

Like all nations which have become wealthy and support a caste of lords and an army in idleness, intrigue enters the picture. A certain famous warrior, the idol of the army, Dacotah by name, determined to usurp the throne. In the last moment, however, the army chose to be loyal to their sovereign and Dacotah had to flee for his life.

For refuge, the great warrior chose the northern capital, where he was well received and entertained. Once in the Land of the Elks, however, he continued his intrigue and finally convinced the Northern Allies that they should give him the command of their armies in his war upon the power of The Black Tortoise. They agreed and the war of centuries before was again renewed.

This time however, the tide of battle flowed to the fortunes of the Great Captain Dacotah. Not only did he know all of the battle strategems of The Black Tortoise armies, but he was a greater military genius, and he cut the armies of his former sovereign to bits, finally storming the capital of the Black Tortoise himself and killing the mighty sovereign. Thus was ended the dynasty of Black Tortoise rule, and according to Decoodah, the last sovereign was cremated by the Eternal-Fire and his ashes buried in the Great Funeral Pyre on the banks of the St. Peters River. Attached to the funeral mound of the Black Tortoise is the Mound-of-Extinction, showing that he is the last of his line.

AFTER establishing his dynasty, Dacotah divided the kingdom equally between his two sons and his two grandsons, keeping the supreme reigns himself. The division was as follows: his two sons ruled the upper part of his kingdom with the Mississippi River as the dividing line between them. The two grandsons were given the southern or more troubled part, also with the Mississippi as their dividing line. This was the most turbulent portion necessitating much war, because more and more nations of Southerners were coming up the Mississippi in waves of invasion from restless Mexico.

When the Great Dacotah had become a very old man, there grew up to manhood in the turbulent southern kingdom, a great-grandson of the First Dacotah, and a very duplicate of that fiery old warrior not only in name but in nature. This young man, versed in the history of his clan as he was, began to intrigue with the newly-arrived Southerners.

Claiming, perhaps correctly, a closer tie of blood to them than to his great-grandfather's Northern Allies, he plotted to have them join him against the Nations of the North who still remained independent of Dacotah's rule, and subdue them. The two most powerful Sachems of the Southerners agreed to join him, and he carried his scheme to the ears of his grandfather, father and the other sub-kings.

However, in this he failed, for they carried the story to The Elder Monarch, and in the long run a new war ensued, the four Dacotah's against the hordes of The Southerners. At this point new inroads were taking place on the southern banks of the Mississippi and the youngest Dacotah was caught between two hostile forces.

The war degenerated finally into general anarchy. Every one of the contending kings were slain and the tribes which had coalesced to form great nations, again broke apart and abandoned their houses for the forest. It was at this time that the building of mounds was forever abandoned.

I closed the book with the abstract attention of one who has returned from a journey into a new land. Then suddenly I remembered the later history of the United States.

Suppose, by chance, that the four kings had agreed to turn upon the former allies of Dacotah but also earlier enemies of their totem? Suppose that the Northern Allies, (the Algonkin Chippewas, Winnebagoes, Blackfeet and others) had been defeated, and the Siouan-speaking tribes of The Black Tortoise had been able, *in the twelfth century*, to weld the rich lands of the North Americans into one powerful monarchy? If the white colonists arriving upon the shores of New England had found this empire instead of a few savage tribes living in anarchy, the entire history of the

world might have been a different story.

For as General Custer could well testify from the Land-of-Shadows, The Ancient Dacotahs, even though out-classed in the matter of weapons, still remain, in any man's language, among the world's supreme fighting men!

* * *

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by William Pidgeon.

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Notes.

Brasseur de Bourbourg *was a Frenchman who learned the Mayan language and with the notes of the very clergyman who had been responsible for most of the conflagration, was able to read the glyphs. He was carried away by an Atlantis-origin theory for Central American civilizations. However, as he was one of the only men who seemed to master the mystery of the glyphs, and as he had sources which since his day have become lost, he is regarded as one of the best authorities even though his viewpoint is no longer held to be tenable.*

The dark picture of fanaticism at the conquest is lightened by two men—Las Casas, *known as the Indian's friend, who worked his entire life in their behalf, fighting his battle inside the church itself. From the veneration in which the Indians held him, he was able to gather much of the information denied to lesser men; and Father* Francisco Ximenes, *who saved and translated all the annals upon which he could lay his hands—including the translation into Spanish of the Popul Vuh. Ximenes works are now largely known through Brasseur de Bourbourg.*

Bishop Zumarraga *burned a great treasure of priceless manuscripts, which included, so he reported, the supposedly extremely ancient volume by Votan The Third, entitled: "Proof That I am a Serpent," which consisted in a lengthy description of travels by sea to some unidentified ancient kingdom.*

What the other savants did for the North American continent Fernando Montesinos *did for the history of Peru. He learned the Peruvian native tongues and applied himself to collecting legends, historical poems and traditions. He sought out the men trained in the court of The Inca to read the quippus, which at the time of his visit, a century after the conquest, had fled to the forests and had there taught their arts to their sons in secret. Thus he became the world-authority upon the history of a land no one else up to his time had taken the time nor interest to inquire.*

GIANTS ON THE EARTH

By VINCENT H. GADDIS

GENESIS tells us that there were "giants in the earth in those days," and practically all ancient peoples had their legends of huge men. More startling, however, is the fact that mysterious giants of unknown origin still walk the earth from time to time, leaving their footprints behind to form one of mankind's darkest puzzles.

Evidence of the existence of prehistoric giants is vast and varied. Several years ago a number of huge mummies were found in northern Mexico—the adults being eight feet in height and the children six feet. They were at least six thousand years old, although several scientists believed that they were far older. Paxson C. Hayes, who discovered a number of them, stated that he believed "these people were of a Mongoloid race; different from the types from which the Indians as a whole originated, because of differences in their facial features and burial customs." They had slant eyes and sloped foreheads, and their bodies were well-preserved.

Dr. B. H. Cummings, dean of the University of Arizona's Archeology Department, found a large number of giant skeletons in Mexico, but his expedition was beaten off by natives before the work of examination was finished. The pottery work of this lost race is said to be more skillfully done than any in other known American cultures. Dr. Cummings was one of the men who found the "cuilco," a cone-shaped temple of an extinct race. It is four hundred feet in diameter, ninety feet high, and conservatively estimated to be eight thousand years old.

The North American Indians had a myth about the "Brobdignags," a race of giants that once lived in America, and their story is supported by several astonishing discoveries. First, according to the *American Journal of Science* (3-26-139), clear and well-defined footprints, eighteen to twenty inches long, have been found in sandstone near Carson, Nevada.

Second, there are the axes of great weight that have been found from time to time. In 1936 a stone ax was found by a farmer near Ellsworth, Wis., that was eighteen inches long, ten inches wide, and weighed thirty pounds. Another ax, made of copper, was found in an Indian mound in Ohio some years ago. It was twenty-two inches long and weighed thirty-eight pounds. But the ax with the record was found at Birchwood, Wis., and is now on exhibit in the collection of the Missouri Historical Society. It is twenty-eight inches long, fourteen inches wide, and weighs three

hundred pounds. The prehistoric John Bunyan who could handle a three-hundred-pound ax was most certainly a giant.

The theory that Stonehenge, the mammoth temple to the sun constructed by boulders of great weight in England, was built by ancient giants has been supported by the discovery of two skeletons. On Salisbury Plain, in 1714, a skeleton nine feet and four inches in height was found; in 1685 at Repton, in Derbyshire, a nine-foot skeleton enclosed in a stone coffin was dug up.

But is it possible that mysterious giants still visit the earth from some unknown point of origin? Three times huge human footprints have been found in a limited area in northern India. Back in 1936 Robert Ripley, in reporting the first two occurrences, called it "The Great Mystery of India." But two years later they appeared again, and the mystery deepened.

On June 20, 1938, a Reuter's dispatch from Simja, India, announced that a large number of apparently human footprints, two feet in length and eleven inches wide, had been found in a field in the district of Jalpaiguri. It was estimated that the owner of feet capable of making such impressions must have been at least eighteen feet tall. Apparently the giant passed by the village in the night, for the prints, which were about 35 cubits apart, were discovered by natives early in the morning. The direction taken by the weird visitor was from the northeast to the southwest.

The first report of these prints was made in 1928 when the impressions passed from north to south not far from Jalpaiguri. The second occurrence was in June, 1936, when the prints were found passing from the northwest towards the southeast in a field near Belakoba in the province of Bengal. They were twenty-two inches in length.

It is of interest to note that this district is just south of Darjeeling and the Tibetan border, between Bhutan and Nepal, along the Himalayan chain. In other words, it is on the edge of the area where the strange footprints of the "abominable snowmen" of the Himalayas have been found. These footprints in the perpetual snows of the mountains furnish one of the great scientific mysteries still unsolved.

The story of the snowmen extends for hundreds of miles through Nepal, Tibet, Sikkim, and Bhutan, and although these Mi-go or Murka—as they are called by the natives, have never been observed by any European, a large amount of evidence confirming their existence has been gathered. All descriptions of them given by the natives are strangely alike. They are said to be monstrous bipeds, half man and half beast, white-skinned and covered with black hair. They devour yaks which they disable by hamstringing. Many natives tell of being chased by these creatures. Lurid pictures of them are displayed in many Tibetan monasteries.

Their prints have been noticed in the snow far above the permanent snow-line by many European mountaineers, and H. W. Tilman, leader of the 1938 Mt. Everest Expedition, reported seeing the prints on a snowfield in the Karakorams. Other tracks have been observed by members of expeditions to Kinchinjunga and other peaks in the area. An English lady from Dalimpong tells of being startled by a terrific roar that shook the ground, unlike any sound she had ever heard before, while she was crossing a high pass into Tibet. In July, 1939, a Polish expedition investigating these strange tracks reached a height of 20,500 feet on Nanda Devi when an avalanche crashed and killed two of the members.

There is a strange similarity between the prints described by Tilman and those found in the snow in South Devonshire, England, in February, 1855. At dawn, after a snow-storm, the inhabitants of this English district awoke to find that the snow for miles around was covered with strange prints. The territory covered was tremendous, almost a hundred miles in one direction. All obstacles were surmounted, including the Este, a body of water two miles wide, where the marks ended on one side and continued on the other. They were grouped in single lines, eight inches in advance of each other.

A difference in size, however, exists between the two prints. Tilman states that the prints he observed in Tibet were about as large as dinner plates, while the English prints, being of the same general description, were about two by three inches in size.

In addition to legends of giants, almost all early and primitive peoples possess myths about the "little people," a race of tiny beings. Much concrete evidence supports the possibility that such creatures did, and may still, exist. Pigmy flints, for example. They are tiny prehistoric implements, some of them only a quarter of an inch in size, and they have been found all over the world —England, India, South Africa and France. The theory has been expressed that they were the toys of prehistoric children, but in India where they have been found, all flints are pigmies—there have been separations of strata between them and larger implements.

According to a report made by the National Museum in 1892, the flints are not only tiny, but the chipping on them is minute. The chip marks are so fine that a magnifying glass is necessary in order to see the workmanship. To accept that a tiny race of men once existed is hardly more difficult than to believe that savages made these flints under magnifying glasses. Since their discovery they have remained a scientific problem.

In July, 1836, near Edinburg, Scotland, at a rocky formation called "Arthur's Seat," some boys found several thin sheets of slate on a cliff which they removed. A tiny cave containing seventeen little coffins, three inches long, was revealed. Inside the coffins were tiny wooden figures, variously dressed in style and material. A puzzling factor was that the coffins had been deposited one at a time in the little vault, and at intervals of many

years. In the first tier the coffins were badly decayed; the second tier was in better condition, and the last coffin was quite recent in appearance.

North of Patrick County, Va., near the point where the Blue Ridge and Allegheny Mountains unite, a large number of tiny stone crosses have been found. All of the "fairy crosses" found in Virginia have been on or near Bull Mountain, but they have also been found in two other states. Some are Roman, some St. Andrew's, and some Maltese. The belief that they are natural crystals disregards two important facts: that they are not all made of the same material and the factor of a local distribution.

Hundreds of reports of actual observation of the "little people" have been made in various parts of the world. Several years ago Dr. W. Y. Evans-Wentz wrote a book, *Fairy Faith In Celtic Countries*, in which were 102 first-hand cases of persons now living who have seen them. Additional reports—from England, Canada, Germany and Sweden—will be found in the *Book of Folklore*, by S. Baring-Gould, and *The Coming of the Fairies*, by A. Conan Doyle.

It has been suggested that these mysterious giants and pigmies inhabit the fourth-dimensional plane—just beyond the vibrational limits of our visible world. Whatever the answer may be, it is certain that their occasional appearances is one of the darkest problems facing modern research into the unknown.

THE END

FLAT-TOP, 1910

IN TERMS of the number of years since man has learned to fly, the idea of using an airplane carrier as part of the navy fleet is an old one. The pioneering of two early adventurers in the field of aeronautics—Eugene Ely and Hugh Robinson, brought a new type of naval warfare to the eyes of the world.

In 1910 when the safety of landing on a flat-top at sea was demonstrated, the idea seemed too impractical, too revolutionary to be put to use. The airplane was still considered a novelty in those days. Few believed it had any value in warfare except, perhaps, for observation purposes. Nevertheless, amid jeers and laughter these two Curtiss pilots landed their crude plane on the wooden platform which had been placed on the deck of the U.S.S. Pennsylvania. It was an extremely dangerous feat to perform for the airplane of 1910 was not yet a trustworthy machine. Spectators who watched doubted whether it could come to a stop within the distance provided in the length of the platform.

The pilots had taken this problem into account. Their plane was the very best type produced in 1910, and Robinson had invented a method of stopping the plane once it landed. A series of ropes were stretched across the width of the smooth wooden deck. Heavy sandbags were attached to each end of every strip of rope forming a long row along opposite edges of the platform. On the underside of the plane two hooks were attached. Upon landing these hooks would catch the lengths of the rope. The weight of the sandbags would serve to hold back the plane and prevent it from rolling into the sea.

The courage and ingenuity of these two men proved that safe landings could be made on a carrier at sea. Today, hydraulic apparatus has replaced the sandbags. Carrier-based planes are numerous in the Pacific war.—*W. N. Hansen.*

THE SCIENTIFIC FARMER

IN YEARS gone-by when a farmer was bothered by insects he would have to walk miles over his farm spraying the plants with bug-killer. Now with the use of electricity he need no longer go through this tiresome procedure. Instead he sets up an "electric bug catcher." This consists simply of a large pan of water over which he places several large electric lights. Around these lights he places an electrified screen. The insects which harm the farmer's plants are attracted by this light, they fly towards it and are electrocuted upon contact with the electric screen. They drop into the pan of water beneath and are fed to the farmer's ducks and chickens.

Before he began using electricity in his hen house a farmer had to wait until it was daylight before the hens would lay eggs. Now the farmer turns on huge electric bulbs, thereby deceiving the hens and increasing the length of time for laying eggs and also his egg production

Many farmers are still chopping the hay with a blade and then they spend hours with a pitchfork tossing it into the hayloft. With electricity, he can crop the hay more rapidly and by means of electricity can have it blown into the hay loft.

Of course, how about the farmer's wife? Life can also be made much easier for her by means of electricity in her kitchen. No more back-breaking work on washday, she has an electric washing machine, and after that an electric iron. No more worry about getting ice, she has an electric refrigerator. Add to these such electrical appliances as a food mixer, dishwasher, an electric range, and an electric water heater and we will find the farmer's wife spending most of her time listening to her electric radio.—*A. Morris.*

REPORT FROM THE FORGOTTEN PAST

THE TRUTH ABOUT MR. SHAVER

THE job of being editor of a fiction magazine is a rather prosaic one—until an author comes along with a story he claims is true. Since the editor publishes fiction, he assumes that any author who submits a manuscript to him knows that fact, and that therefore that manuscript is fiction—even if he avers it is not. Nine out of ten new writers come up with that corny line, and an editor gets used to it. Besides, it helps to make a story credible if it has a verisimilitude of the truth.

Therefore, when Richard S. Shaver sent in his story "I Remember Lemuria" . . . but let's begin at the beginning—

Some two years ago we received a letter from a gentleman who, besides being a reader of AMAZING STORIES, had what he termed "an ancient alphabet" which should be preserved. Where he got it he failed to explain. Howard Browne, our associate editor, later became famous for having tossed this epoch-making letter into the wastebasket with the remark, "the guy's nuttier than a fruitcake!"

But we fished it out of the basket and said: "Let's see whether he is or not." We tested the alphabet (especially the significance of the two all-important letters D and T) on old English words, on Latin, on Hebrew. A surprising number of them made sense, and some of them made amazing sense. So we published the letter.

Very soon we had many letters telling us that we had (1) something there; (2) a swell parlor game; (3) a pig in a poke and we were the ones being poked—in fun. Then your editor, casually reading a book by James Churchward, ran across an amazing discovery. The alphabet worked on two symbols that Churchward claimed had not been translated. Furthermore, the translation was consistent with the already translated portions of the particular group of symbols Churchward presented.

Mr. Shaver, seeing his alphabet printed, wrote us to thank us, and incidentally, since we believed in his alphabet, sent us a manuscript which he said was also vital, and true, and would we print this, entirely gratis, for the very admirable motive of the preservation of knowledge of value to mankind.

We liked the story, but not the writing. So we re-wrote it, making it three times as long, and we *paid* Mr. Shaver for his portion. But, to our later regret, we didn't believe his story of how he got the tale, and we retitled it "I Remember Lemuria" and called it racial memory, because that seemed more credible to us, and we wanted to create our usual verisimilitude.

We got TWENTY TIMES THE USUAL NUMBER OF LETTERS on the issue—and all of them about this one story! More unusual, most of the readers agreed with us that the story was not entirely fiction. Many claimed the same knowledge—and proved it by ADDING TO IT. They told us of such "memories" and described certain gadgets they had used, supposedly during a previous life in Lemuria, in detail. Meanwhile, new manuscripts had come in from Mr. Shaver in WHICH THOSE GADGETS WERE USED IN EXACTLY THE SAME MANNER. How could we account for that? Collusion between Mr. Shaver and all these letter writers? So *many* letters? Not likely. Mr. Shaver would be a busy beaver indeed to institute such a publicity campaign, and without a slip-up anywhere. We checked dozens of the letter-writers and found them to be legitimate. But the most embarrassing thing of all was that they flatly told your editor that it was NOT racial memory, and that we had harmed the reality of the story by saying so. They told the REAL source—and it AGREED with the story Mr. Shaver had originally told us.

In plain words they said the caves did exist, that the deros did exist, and that the gadgets did exist, and that the Atlans and Titans had lived on the Earth and had done just as Mr. Shaver had said they had done—and almost every bit of fiction your editor added to the original manuscript was rejected by the readers as being just what it was, improvisation! They agreed about gravity being a push, and they agreed on many other things, all of them what Mr. Shaver had said. THE ONLY THINGS THEY DISAGREED ON WERE YOUR EDITOR'S very clever (in small letters!) additions.

Well, your editor knows enough to admit when he's wrong, so he changed his tune and called the stories what they really were, "thought records." But where did Mr. Shaver get the records?

In the caves? We said exactly what our readers said. Then Mr. Shaver could lead us to the caves. Well, Mr. Shaver refused, and his reason is well-known to you. Because of the great danger! Because the DERO are as real as the caves, and they DON'T WANT SURFACE PEOPLE DOWN THERE!

Well, your editor went to visit Mr. Shaver. He wanted to see for himself. He spent three days with Mr. Shaver (during which time Mr. Shaver

very thoughtfully tried to make us comfortable by asking his contacts to "keep things quiet" while your editor was there). THEY DIDN'T. But we didn't tell Mr. Shaver that. We kept what we saw and heard to ourselves. We wanted to test it; we wanted to know if this wasn't more hocus-pocus to impress us (although why it would be necessary is hard to conceive, since we'd have been fools to let any of Mr. Shaver's writings slip through our fingers!) We took more liberties with a man's house than we care to admit, but there were no concealed microphones, wires, or motion picture projectors. BUT WE HEARD AND WE SAW!

What did we hear? Well, we don't intend to say unless we can prove it. There are booby hatches for guys who say such things seriously. Of course, you (and we!) can always say, "*Amazing Stories* is in the market for sale, and *anything* to pep up sales, even if it is fiction—" hey, that's what the magazine publishes! So for those of you who want your editor to have an alibi for saying he believes the stories, why certainly he does—for business reasons; and business is GOOD, as he can prove.

Then the fan letters began to develop a queer twist—many of them became threatening. Some of them told us flatly that we wouldn't live very long if we persisted in this line of investigation. Others were friendly warnings that we were treading where angels feared to tread. Still more were warnings from psychiatrists (?) that (1) Mr. Shaver was nuts (2) we would also go nuts. In which case we would need a psychiatrist and that seems poor business sense on their part to turn down a good customer.

Gradually your editor began to see an amazing thread running through all the letters—a thread that carried a pattern that was NOT AT ALL a part of Mr. Shaver's "science," but something he does not dream of, and, in fact, would not consider possible. It all ties in with the two significant questions we asked (1) Do you hear voices, and if so what do they say? (2) Do you believe you have a mission in life that has a great mystery behind it, and is tied up with mysterious unsought and unlearned knowledge which keeps popping out of your subconscious? Based on the formula used by advertising companies to determine the number of prospective customers, your editor would judge that there are 1,800,000 people in this country who KNOW they hear voices, and that MOST of the rest hear them and call it their subconscious, their conscience, or just their own conscious mind in a sort of give and take argument. Based on the same formula, about 500,000 believe they have a mission to perform which is, in a sense, preordained in some mysterious manner. Lastly, based on the same formula, there are 100,000 people in this country who have UNLEARNED knowledge of a highly technical nature in their minds.

These things in themselves are AMAZING. Experts will no doubt point out that the ad formula, used in this manner, is silly. To which we reply, scale it down to ten percent, and it's STILL amazing.

Next, your editor has in his files quite a few indicated locations of openings to caves, and of caves where people have had strange and terrifying experiences. Most of these can be dismissed as imagination—but SOME OF THEM CANNOT. These are to be investigated.

Right here is where trouble comes! Thus far, several people who have expressed a sincere desire to carry out these investigations have been warned to desist, or suffer DEATH. Weird phone calls, unexplainable, even as a prankster's work. We reproduce the latest one here:

STAY OUT OF THE CAVES!

Dear Editor:

On July 30th, 1945, Mr. Shaver made a trip to Washington, D. C. to see me and some doctors of this-and-that from the museum about the ray people of the caves. We made some very active and fine plans for the future investigations of the caves, and three days later, on this August 3rd, I wrote you a card and mailed same, demanding action and asking for a letter with information, the latest. In it I said, "If there is an expedition, editor, I want to be in on it."

About a half-hour after this I heard the office phone ring. A girl answered it. She said a voice asked for R. L. Tanner. I picked the phone up and a voice, the most peculiar I have ever heard, said without pause or punctuation, "Hello you had better stay away from the caves or you will die by de ray."

Mr. Editor, I not only give you permission to publish this, but I want you to, URGENTLY.

I swear by all the gods in heaven that this is true. I give you my word of honor. *Please* believe me. It means that these monopolistic groups below MEAN BUSINESS and will go to any lengths to stop this investigation. Mr. Editor, that message to you was no joke. They meant it, and they mean it for me.

All of you, readers and editors alike, I warn you, SOFT-PEDAL this thing or something awful is liable to happen. As for me, since I cannot hold down my interest, I will read the stories and think about them, but will not do any work or research on the subject. They must have known I was dangerous to them or they wouldn't have gone this far. I was getting ready to do a lot against them. Shaver had told me what to do and he was right. It was exactly what they do not want.

Now I have no doubt of Shaver's truth. He said that if I kept at it long enough I would see for myself. God! I have seen, or heard, rather.

Really, it is imperative that you slow up on this work to get into the caves and take the machines. Something unthinkable might happen to us all if you don't. I have just discovered how dear life is, having thought before that I would gladly give mine up if it would help. I am not being a coward, or selfish. I don't think they will bother

me if I leave them alone, AND I AM GOING TO!

R. L. Tanner,
919 E. Capitol St.,
Washington, D. C.

P. S. The accent was peculiar, not like any I have ever heard. He rolled the "R" in "ray" and I don't know whether he meant "the" when he said "de" or whether he meant "DE" as used in Shaver's alphabet.—R.L.T.

* * *

NOW, if this mysterious phone call was the work of a prankster, it was a cruel trick to plan on Mr. Tanner, who is only a youngster. He is obviously terrified by the threat. The jokester, if jokester it is, should realize that a threat on the life of any person is criminal, and punishable. It is acceptable evidence in a court of law in the event of murder, and can be used to aid in the conviction of the murderer. A threat of death means intent to kill, provided the provocation is brought about.

To Mr. Tanner we have this to say—please check all you can to determine whether some "friend" to whom you have related this Shaver cave business and your interest in it has not played this trick on you. If you can find such evidence, please notify us of it. If you can be sure that you did not tell anyone who might make such a call of your interest, notify us of that fact.

We have this to add—IF Shaver's caves and dero and machines do exist, we DO have something unthinkable facing us all, and an ostrich-in-the-sand attitude isn't going to keep it from happening. We don't blame you for being scared; but either there ARE dero, or there are NOT. If not, there is nothing to fear. If there are, then any action on their part that would be spectacular (such as the murder of your editor—and it has been threatened), would result in quite the reverse of the result desired by the people of the caves. It would, in brief, *prove* their existence to the world, and INSURE investigation of the caves. Further, your editor has taken steps to insure such investigation if anything does happen to him.

Lastly, we do not expect any of our readers to actually make such investigations of the caves because of the very fact that two possibilities exist—either it IS dangerous, or it is not. If it is, then we certainly do not want harm to come to the unsuspecting investigator, whose investigation can do nothing toward circumventing the activities of the dero, IF they are as powerful as Mr. Shaver describes. Personally, your editor does not believe they are so powerful—or he would already be dead! Our investigations have been much more serious than we have intimated. This statement might be construed as a challenge. Perhaps it is. If it is accepted as such, the acceptance will prove much more dangerous to the dero than non-acceptance. If they are so damned powerful, why must they resort to threatening a mere boy!

You might say that your editor, in spite of his publicity (?) statements to the contrary, is the veriest of skeptics in the Shaver Mystery—and he will (1) prove it, or (2) DISPROVE it!

* * *

SINCE this department is obviously incapable of reproducing a thousand letters, we have been forced to change its nature, and make it a combination of letters from readers and a digest of the rest of them, in a sort of breezy editorial style. We hope that it will prove as interesting in this new format.

The subject of Mt. Shasta becomes one of the matters for editorial condensation. It seems that quite a few people have investigated the story of mysterious people with mysterious powers located in, on, or near Shasta. (By the way, we apologize for putting Ranier in California in our last issue!) We have similar reports on Ranier, Royal Teton, and several others. The reports have varied. Some investigators have tramped all over Shasta (we doubt this, as that's a lot of territory, and some of it unclimbable without help) and found nothing. Others have seen weird lights. Others weird buildings with golden domes. Others processions of lights as though in ceremony. Others claim an "order" in which they at one time were invited to membership, but later failed in certain qualifications. Others relate seeing people with mysterious "bulge" in forehead. There are tales of these people coming down to the little town of Weed and buying salt and other staples, and paying in gold dust. But most significant is the story in a San Francisco paper that several days after the Tokyo earthquake disaster of 1923, these mysterious people came to the Japanese consul and GAVE HIM ONE MILLION DOLLARS IN PURE GOLD with the stipulation that it be used to aid in relief work in the stricken city. We would like further confirmation of this story. San Francisco residents might aid in the check, if they will. Such a story could be a reporter's try at a sensation in the Sunday Magazine Section. But the truth of the matter is, there is a great deal of foundation to the story that there are people in Shasta. In fact, the I AM cult (has an office in Chicago) is founded on the visit of one of its members to the mountain, and a contact with these personages (Including people from Venus).

These people, it is claimed, are descended (rather indirectly) from the ancient Lemurians. They have, reportedly, been seen to use cigar-shaped aircraft which become boats when landed in the Pacific, and have been seen as far north as the Aleutians.

More accurately and dependably, Army Air Force pilots have been experiencing weird and very dangerous electrical and magnetic phenomena above this mountain, and above the others mentioned, and almost all California and Washington and Oregon mountain ranges. These phenomena sometimes take the form of strangely ordered static sounds in radio that suggest code messages, or messages in a strange "radio" language.

Churchward says Japan is an unsunken portion of the mainland of ancient Lemuria. Geology,

which is, apparently, an extremely contradictory and unreliable science, says both no and yes—insofar as undersea granite or basalt remains are concerned. It could be, they admit, and fail to prove either way.

There has been a report of a huge lost city (extensive ancient ruins) found in North Burma by the U. S. Army Air Force. Peculiarly, the description and location of this city agrees with the mysterious "lost city" references contained in Tibetan monastery records, and translated by Churchward as the "record city" built by the inhabitants of Lemuria some 35,000 years ago to preserve their history and knowledge and science from the destruction they knew was coming. He said Burma was selected because it was least likely to be inundated or destroyed by earthquake. It is strange that the ancient records should be proven to be accurate by the discovery of a huge ruin exactly where it should be. After the war, it will be interesting to excavate and discover if the stone carved records actually do exist, and whether they can be translated.

Anthropologists report the discovery of a race of little people, only 12" tall, yet perfectly proportioned, exactly where Lemurian legends place them, in the South Pacific, in China, and in Burma. And oddly, China has been discovered to be RICH in the skeletons of a race of people EIGHTEEN FEET TALL, who existed as much as 15,000 years ago. Shaver's giants, it seems, did exist. Such a skeleton has been discovered also at Klamath Falls, in Oregon, the site of the weird cave writings which are supposed by local Indians to have been placed there by their "ancestors from a great land to the west" but not far enough to be Asia.

Most baffling of all is an amazing book called "Oahspe" which purports to be a history of the past 79,000 years, both of the earth and of heaven. Disregarding the heavenly sections, here are 750,000 words of history in which there is NOT ONE contradiction, and which ties into a cohesive whole all the legends and folktales of the world, and all the archeological discoveries of the past, and depicts a logical and convincing, and for the most part provable relationship between all the races of mankind for LONGER than science says civilized men existed on the earth, or even cave-men!

L. Taylor Hansen recently uncovered one of the tribal secrets of the Sioux Indians, and this secret was agreeable in all detail with Mr. Shaver's first story, "I Remember Lemuria." (This revelation will be published complete in its natural sequence in the articles by Mr. Hansen in this magazine—which, by the way, are sensationally agreeable with the stories by Mr. Shaver, and with the mysteriously written book "Oahspe"). In plain words, the exodus from this planet did take place, and the great battle between gods and goddess from space and the evil god, Zeit, did take place in underground cities—because the Sioux fled from such a city during the battle, as related by their revered tribal legends. Further, Mr. Hansen was able to locate for them, beyond all doubt, the actual city from which they fled, and at the same time, prove a hitherto unsuspected link between the two Americas and the origins of their respective Indian tribes.

Mr. Hansen related, too, the discovery in the Panamints, (Death Valley) of a mysterious smooth, unshored shaft that was filled with mine damp and therefore poisonous to explorers, in a region where no mine can exist without shoring every foot of the way because of the nature of the rocks in that locality. He insisted that after the war, when equipment to do so is available, he intends to go down into that shaft.

But most ominous, we recently received a letter making disposition of his articles, which are completed and now form a very valuable anthropological book, as though he might not be able to make such disposition himself—and then proceeded to vanish on a mission which he stated "might be dangerous." We have not heard from him since.

* * *

AT THE very moment we write this, President Truman announces an atomic bomb, more terrible than any explosive ever developed, which has just been dropped on Japan. Atomic power, he says. Atomic power, the mad, science fiction dream of our equally mad authors! Come true at last. What will it mean? Here again, Mr. Shaver enters the picture. If you've read the *Observatory* in this issue, you've seen one of the peculiar phases of the correspondence that has been flooding us from people who have unusual abilities. That is, those who "remember" the past and its sciences (including the "science" of phophecy), with an insistence on some earth-shaking disaster—specifically in more instances than we care to name, the SINKING OF JAPAN. And we point out that we have already yanked a yarn out of this issue to make room for Rog Phillips' story "Let Freedom Ring" which is a story that begins with the sinking of Japan by means of *bombs!*

Does this "prophecy" really have anything to it, or is it all hokum? If you've noticed our second cover illustration (opposite the editorial) you've seen a pyramid prophecy that has just come true, in 1945. Can such things be? If so, we want to point out that February 18, 1946 is the next date on the Great Pyramid's schedule. What will happen then, if anything? What if something vastly important, historically, DOES happen? What will we make of that?

President Truman's stunning announcement brings home the possibility of the destruction of an island as large as Japan by bombing as distinctly credible. It could happen! Picture for yourself: the dropping into the crater of a Jap volcano of just one hundred of these atomic bombs, EACH of which has the explosive power of 20,000 TONS of TNT! Imagine the effect of the equivalent of TWO MILLION TONS of TNT in one vast explosion. Or, if you want to place it on a full-scale tonnage basis possible with present B29 fleets, TWENTY MILLION tons. It is utterly possible that the resultant explosion would be sufficient to

cause such a disaster as the sinking of the island, its granite (or basalt) shelf crumbled by the shock. The tidal wave that would result would wash its way clear to the Rockies, and might be as disastrous to us as to Japan, nationally.

War has come to a horrible pass. It has come to its ultimate pass. With atomic energy at its disposal, the next war means the certain end of civilization. What good is a peace charter now? We need more than a charter. We need, at last, the one thing that man has as yet failed to do—universal brotherhood.

No longer is the destructive power of Shaver's (imaginary or not) underground science the secret of the underground. It is on the surface now. Did it, PERHAPS, come from the underground? What strange guidance might our scientists have had? If Shaver's telaug is a real instrument, might it not have been the guiding power?

This initial announcement by our President makes casual mention that the first bomb was dropped into a city of 318,000 people. What happened to those people? Perhaps a good many of them were killed. Certainly there was a holocaust of human lives that can only be pictured in peace-thinking minds as ghastly. Yes, the Japs are our enemies, and they did attack us—but they are human beings, and they are now dying by the hundreds of thousands. Human life is cheap, and our lives are no exception. They may be spent as extravagantly in the near future. The time has come when war MUST end. No mere peace charter will do it. No flood can be eliminated by the addition of more water—and peace by force is fighting water with water. Now the force is atomic force. We can only hope that the peoples of the world, faced by the FACT of utter destruction in their own hands, can and will STOP FIGHTING.

Which brings us to the second phase of the amazing results of the publication of Richard Shaver's uncanny stories.

* * *

DR. THELA NEWCOMER'S letter in our last "Report" was accompanied by the comment "Is It Occult?" Just what is occultism? Occult, says the dictionary is "concealed from observation or knowledge; not immediately known; perceivable only by investigation." Popular misconception has it that occult things are not REAL things. But the dictionary tells us plainly they are only UNSEEN things. But they ARE real! Now we have a basis upon which to build a theory to explain many hundreds of letters we have received. Many of them claim "occult" powers, by which they mean something weird, mystic, unreal, unexplainable. They say they are "reincarnated" or that they can "prophesy" or that they hear "voices" out of diamond rings or stones or from the world of the dead. They say they can leave their bodies and go on astral journeys to other planets. They say that they contact weird "masters," or "Elders," or "The Others."

Occult? No, REAL! The dictionary states positively that occult things are real things, but not immediately known. The UNKNOWN real thing. the UNSEEN real thing.

Almost immediately we begin to see a connection. Mr. Shaver calls them "dero" and "tero." Peculiarly, the ACTIONS of the "occult" beings and these cave people are identical. They perform the same amazing and the same hideous things. The same usual and unusual things. The same miraculous and sordid things. In other words, the "voices" Mr. Shaver hears in his "thought records," although attributable to mechanical science in caves, may also be the voices the believer in the occult hears. They may be one and the same. But which is right? The dictionary says Shaver is right, because he says they are real, while the occult follower says they are unreal. We may be doing the occultist an injustice, as he places the occult on another plane, or in another state of being. In that sense, he also may call it real.

Here we have an answer that is significant. One of those who wrote us a "fan" letter, later sent us a tremendous article containing a completely new theory of mathematics, of the nature of the physical universe, and of the nature of real things, including such simple things as how a tree grows, how to make a mechanical brain, how to make mechanical wings—but we are getting ahead of ourselves. All these things are his inventions, and he will bring them before the public eye in his own good time. However, we are prepared to publish some of his mathematics, which will SUPPORT and PROVE Shaver. It may not be agreeable with Einstein and Newton, but the PROOF of the equations are included in the paper, and they are open to refutation by any mathematician, including Einstein. We WANT them refuted, IF THEY CAN BE! Missourian-like, we want to be shown.

Now, these equations give us a mathematical proof of the REALITY of occult things. For instance, you might not call a number an occult thing, but that's what it is. If you think not, what IS a number? Can you tell us? Mathematicians can't tell us. What is zero—the *number*, not *nothing*. What is infinity? *How much* is infinity?

You will hear a great deal more from Mr. Roger P. Graham in the near future!

* * *

WHAT about the telaug, now? We can't tell you much yet, but we do have reports of the actual invention, not by the dero or tero or what have you but by surface men, of such an instrument. It may interest you to know that some years ago Sir Hubert Wilkins, the famous explorer, went to the pole and while there conducted an experiment in mental telepathy with Harold Sherman. Sheman remained in this country, and nightly composed himself in a receptive mood and wrote down whatever came to mind. When Wilkins returned from the pole, they compared notes (including copies mailed when written, to two scientists) and the results were conclusive beyond all doubt—Sherman had received Wilkins' thoughts! You can read all about it in the book "Thoughts Through

Space."

Science has proved that thought is electrical in nature, and can now record brain waves on the encephalograph, and can diagnose brain tumors and other derangements by means of brain waves.

A gadget sent in by several readers, (prior to publication in *Amazing Stories!)* which served to *confuse* thoughts, but not transmit them, is entirely workable.

Thoughts can be affected mechanically! We know that for certain. The telaug is possible. Shaver says it exists in the caves. Certain readers have sent us descriptions of it, and at least one has *invented it.* We are checking. If so . . . Well you know what if so!

Are Shaver's stories true? What do *you* think?

And now, we present a few extremely important letters which the writers have consented to allow us to publish.

SECRECY—OR NOT?

Are you really in earnest, or is this an advertising stunt?

I'm interested in any event. I'm also convinced that I hold key to the curved principle of applied force; i.e., for motive power; interstellar travel, etc.

Also am more than positive of several mechanical principles to which I hold the key.

Natural caution forbids me to throw to the winds something I have very carefully considered and found to be perhaps dangerous to be put in the wrong hands.

It is quite possible others may hold the same keys and if they wish to assume responsibility for sequences sure to follow and release their knowledge that is up to them, but I don't care for publicity or notoriety or the moral burden sure to be placed upon my conscience.

Really do you think that mankind is ready for the advancements that are sure to come, when certain things are revealed? Frankly I don't. And I do feel sure that (although I would deliberately let certain things die with me) in proper time these same things should come to light through the natural course of events..

Are you sure that what you are doing is the best for man as a whole?

In my heart I hope you are right. I've fought my own battle, and maybe my decision to submerge myself and the many ideas I've worked out is the wrong thing to do. Why, after more than twenty-five years have I to do the same struggle again?—A. F. B.

You claim to have certain knowledge to do certain things. Disregarding for the moment how you get that knowledge, let's ask why? If just for you to forget about and never use, why did you get it? Use your head, man! NATURALLY there are forces (dero) opposing the usage of such beneficial knowledge, and if you fall for their "wool," as Mr. Shaver calls it, you are playing the other fellow's game. Is mankind ready for what? If you mean such things as atomic power, it looks as if you are too late to worry about it. Now, if you've got anything good, out with it—and when you decide in your mind whether or not to tell this editor about it, relax for five minutes, just forget your problem, then DO AS YOU ARE INSTRUCTED. And if the instruction is to add your knowledge to what is being compiled, you can be sure that it can be given with trust.—Ed.

GIANTS IN AFRICA!

Richard S. Shaver's description of the incredibly ancient Atlan colonies is certainly most remarkable. I do not know if he mentioned Africa in his first story in the March issue, for I had no sooner finished it than one of my friends grabbed it. In the June issue, however, I find definite mention of Africa, and this intrigues me greatly.

I am glad that Mr. Shaver gave an explanation of how he obtained the first story in this last edition, or rather issue, because I somehow did not quite believe in the "racial memory" explanation.

I would much appreciate it if you could let me know if the underground caverns, which Mr. Shaver mentions, are supposed to exist under Africa as well as other parts of the world.

There are many legends, among the native races of this country, which have been handed down from generation to generation which tend to support Mr. Shaver' stories.

I once spoke to a native who came from the mountainous region of the Northern Transvaal, who told me that there was an area in the mountains which the natives shunned like poison. At first he would not tell me the reason why, but at last he broke down. He told me that the area was "taboo" because it was known that evil giants lived there. I pressed him further and he told me that many hunting parties and also some individuals had encountered these giants.

The native then went on to say that not all who had seen these giants had come back alive. Several surviving members of parties had returned to tell, but the remainder had all been found dead without a mark on their bodies.

All the time I thought that it was a very good yarn, and had a good laugh at it. The native, however, did not like the laugh and insisted that he was telling the truth. Up until a short time ago, however, I still thought that what he had told me was just a tribal yarn. Mr. Shaver's stories, however, have now given me food for thought.

I will be glad if you will let me know if Mr. Shaver agrees with what I have written. Also please convey to Mr. Shaver my sincere appreciation of his great work.—R. F. C. B.

We believe that you can take the native story for truth, although it may be greatly colored by narration. Mr. Shaver is not pleased to know that the "giants" of the Transvaal are evil, and can kill in the manner you describe. It indicates that cavern exploration even in Africa will be highly dangerous.—Ed.

MESSAGES FROM SPACE?

After reading your article in the September issue of AMAZING STORIES, I find I have three reasons for writing you. First, as I shall shortly show, I do have memories of things that happened at the dawn of history. Secondly, I may have, or be able to obtain, information that will be of use to you. Thirdly, it is quite possible that you will be able to help me.

As a child I used to picture diagrams of electrical and radio equipment in dreams. The strange part of this was that I had no knowledge of electrical phenomena, and also, I later learned, these diagrams were composed of "thought symbols" rather than the conventional symbols of our present time. As I grew older and began to study, I learned that these diagrams were of modern electrical machines. But also as I grew older, I pictured more advanced apparatus. Finally, last year, while I was in England, I built one of the machines I had in mind.

In effect it was an amplifier of thought waves. It, however, was able to take the electrical impulses of one person's brain and treat them in such a manner as to reproduce the same thoughts in another person. As with a radio receiver, these minute electrical impulses activated the grid of a triode, which controlled the transmitter. It was quite a bit more complicated than this, however, as I shall now attempt to explain.

At present we have machines that pick up "brain waves." These machines, however, actually pick up only the modulations of the wave, as the frequency of the carrier wave is by our standards amazingly high. In amplifying these brain waves then, again only the modulations are reproduced. It is the same as a radio receiver taking a modulation of say 252 beats per second from a carrier wave and amplifying it. Obviously an oscillation of 252 per second would not be able to produce radio waves. If a rebroadcast were to be made, the 252 beats would have to again be imposed on a carrier wave. With our brainwaves, we also have to superimpose the waves we receive on a definite ultra high carrier frequency, in order for it to affect the mind.

I made several applications of this machine. One was to make a record of a person thinking rules and words of a foreign language. I played these records on my transmitter, while I was sleeping. By morning, I had mastered the language.

Knowing that only I had the key knowledge of how to produce the vital carrier wave, I spent all my time, except while I was bombing Germany, in developing uses of this machine. The next step was the one that will probably interest you most. I changed the machine so that it would pick up thought waves at random.

I received thought impulses of astounding strength. Much of the reception was of such a nature that I could not understand it. When it came in words, it was a language I didn't understand. Nevertheless, I seemed faintly to remember some of the phraseology. At times I could understand it for minutes at a time, and at other times, the thinker thought in picture form. Again I had trouble. The Thinker projected pictures of such magnitude and complexity that my mind was unable to grasp them. My main difficulty, however, was my lack of knowledge of ancient times and of ancient "gods," which were mentioned.

I was able to take a bearing on the source of these impulses. After returning to New England last spring, I again took a bearing. I have now taken a third bearing from Texas. AND THESE THREE LINES OF POSITION FORM A PERFECT STAR. *I HAVE THE LONGITUDE AND LATITUDE AND IT IS AMAZING!!!*

I have, by changing the frequency of the carrier wave slightly, picked up other powerful thoughts. Again I have taken bearings, BUT THESE THOUGHTS DID NOT ORIGINATE ON EARTH. *THEY COME FROM BETELGEUX.* These thoughts at times are jammed. The interference comes from the region around Aldebaran. I have been able to understand the latter to say he is Hastur of Celaeno.

As I mentioned in the beginning, my remembering of the diagrams and parts of the language is most certainly racial memory. Also, you see why I may be of help to you. Perhaps you or one of the readers will now be able to help me. I do not have the occult background to understand the things I am hearing. If someone would send me information—better books, anything on the subject, I am sure it will be for the benefit of us all. —A. J. B.

We will make no comment on this letter except to say we have answered it, but we publish it for a specific reason. If anyone who has any such knowledge, or any knowledge at all derived from this same mysterious source, realizes he or she must do something with it, but does not know what, judge from this letter and follow suit—first asking yourself if this is the proper thing to do. Conversely, if you are in need of help, our files will be thrown open to your study if you can PROVE (by a means that will be perfectly obvious to the right persons) to us that you deserve such help.—Ed.

A WARNING

If you persist in this ill-advised investigation and are interested in Shasta you might read AN EARTH DWELLER'S RETURN by Oliver. You will find such as this:

"Sec. 1254. 'We do not suspect this, nor that a long tunnel stretches away far into the interior of majestic Shasta. We do not dream that at the tunnel's far end, there lie vast apartments, the home of a Mystic Brotherhood, whose occult arts hollowed out that tunnel and mysterious dwelling. It is called SACH. . . .'

"Sec. 1256. 'Once I was there, Friend, casting pebbles into the stream's deep pools. It was then hid, for only a few are privileged. De-

parting from the spot, it was forgotten and today, as unable as any who read this, I cannot tell the place. Curiosity will never unlock the secret. Does it truly exist? Seek, and ye shall find; knock, and it shall be opened unto you.'

"Sec. 1257. 'Shasta is a true guardian, and towers silently into the sky, giving no sign of that which is within its breast. But there is a key. The one who conquers self, Shasta will not deny.'"

Much more is here to satisfy your curiosity and yet more if you seek in A DWELLER ON TWO PLANETS by Phylos written by Frederick Spencer Oliver as amanuensis.

If you would be wise you would not traverse beyond your present position and the reading of such volumes and others which treat of the subject slightly. Like Oliver, Mr. Shaver's enlightenment is unfortunate in its misunderstanding. Have no fear for yourself as your present position and purpose will never bring what you seek and thus avoids the misfortunes reaped upon ill-advised seekers. However, it is possible that, with years of proper preparation, you may be worthy of the knowledge available.—Anon.

We might point out that our "investigation" is not our own choice. We did not deliberately seek the "knowledge available," but it is being thrust upon us through Mr. Shaver's stories. You speak of availability. Also you speak of danger. Perhaps you are the unwise one! Can it be that you are blind to the true danger inherent in further secrecy? The weapons of the dero are being brought to the surface. Do you think that those people who are dying wholesale in Japan today will not have their revenge? You say we are safe because of our position. This is not true. We are safe for a much better reason. However, we take your warning as a friendly one, and we suggest that you write us again and explain yourself more fully. Perhaps your own knowledge can be added to! Remember the one rule of the universe—he who does not progress, retrogresses! Inaction is impossible—and that is what you are advocating for the majority.—Ed.

STRANGE LETTER!

There are many things you have been seeking, but in your haste to find what you are looking for you have overlooked many things.

However, I may be mistaken in that while you speak of many things, there are others you keep to yourselves, which is right. But only to a certain extent.

I myself cannot speak, but perhaps I can show you the way for a short time. The correct paths to follow.

We who are here are the last of our race, and even now our numbers grow smaller. The seven great cities still exist, although their creators are long gone and forgotten. Even "Shaver" cannot know of their history, as our race has only the dimmest legends of the peoples who built them.

The plates you seek, perhaps we had them, but all is buried now past all human means of recovery. It is better so. Even as you know nothing of us, who are soon to pass into the dim mists of long forgotten history. The world will little know what part we had in human progress, or little care. One of you said those words and little knew those would be our last thought. We who once ruled a universe, the shadow men, the ones who walk in the night, who made dogs howl, babies cry. You humans were so comical at times, but we loved you and tried to help you. Do you know where ancient Egypt got its learning over-night? Who built Ankor, and then erased its peoples? Who when the race faltered, gave it a guiding hand, on the upward road?

Yes, I know you will not believe this, but read on and perhaps I can tell you of what you wish to know. Our code, to lend a hand, but never hinder.

To you and those who follow, these are my words, to you who seek the Indian drums of Seneca Lake, the light of the great dismal swamp, the snow caves. (Folk lore of the tribes of N. Siberia. Mt. Shasta, let no man think of it in terms of anything but bad. There is not a thing there that the human race can use, now!)

The race of man came from a system behind the "Great Dark Nebula." And are not of the so-called "Titans, Atlans, Neptanus." They are early wanderers, nomads of all the systems, and may some day return. But we have taken care of that so that there is no need to fear, your race will have long followed ours into the shades before they return.

If you would learn, the "Bible," "The Koran," old versions. The Books of Lan, once at "St. Peters in Rome," The scrolls, in the caves at Ankor, not to be mistaken for *one of the caves*, an American soldier had one, but I do not think he realizes its value. Then also it may be a useless one. The black rock at Mecca; on its under side once in fine lines were inscribed the map to *Tal Mar*. Does anyone remember that great city?

There was a "Herr Dr. Gaber" in Berlin who collected rare books; he had one that he never realized was worth more than the combined treasures of the earth. Then, Adam and Eve. Well, that's easy and no harm done, though many of your more religious readers will protest. They were the twin rulers of the ancient home of your race. Exiled because they looked to the stars, which was forbidden. Fled to earth, with followers.

"Heaven"—up, always looking to the stars, the home planet.

That is all, now we leave, perhaps some may know of our going, of them we ask "Keep our secret." May the silent ones watch over you, and guard you.—*Taeo Tan.*

Here we "gotta be shown"! Many of the things you hint about so mysteriously we know perfectly well, but those "sources" you speak of, that's very fine and we're willing to study them if we

can only get them to study! For instance, the Ankor scrolls, and others. Yes, we would learn—if we can find the records. Maybe some reader knows where some of them are, or maybe can point out from which Lovecraft saga they come! —Ed.

SOMETHING TO THINK ABOUT

You don't know how pleased I am to see the articles on Lemuria, and whether it be wholly fiction or fact remains to be seen. I have been looking for a long time for something like this to break and I hope that no one gets hurt.

No I don't remember Lemuria nor do I have any remembrance of the past, but I do know that there existed on this earth of ours in the past a civilization far greater in intelligence than we are today. Their scientific knowledge was greater than we can even imagine and their kindness and benevolence we ourselves can attest. They were Gods to us and worthy of any worship that the races of the earth can give them. Don't think for a minute that we have been abandoned by them for I am sure that everything of note, that happens, is reported back to them and I'm afraid that anything that might hurt their cause will be dealt with.

Now for my own story or incident. I am 53 years old. I have lived a very quiet life, have always been very stable mentally, but am called by my associates and acquaintances exceptionally intelligent. Ever since I was a child I have always seemed to know the answers to most of the questions and have been an inventor since a child. Many things I have thought of and worked out mentally and years later seen them invented by someone.

About 10 years ago one evening I sat relaxed and at ease and let my mind roam about thinking of this and that and for some reason the thought entered my mind—Why should such a wonderful machine as the human body whose parts are supposed to be self-replaceable have such a short existence and what could possibly happen to us after death. Immediately I began to learn things. Things I didn't know about but checked later and found true. Things that I shouldn't be knowing, nor anyone else, came to me one after the other in almost story form. I wasn't in a trance nor asleep, but boy I sure wish I could have been somewhere else, for why should I have been picked out to be given this knowledge? I can't see any use for it nor any way I can serve humanity or the gods by knowing. You see I found out what actually happens after *death*. The effect on me was tremendous. I hope I may never again so nearly go crazy as I went then. For three or four nights I didn't even dare close my eyes in sleep. It was a terrible mental shock. I just lay in bed and kept repeating to myself—"I must create a dam in my mind—I must dam up that part and not think of it." Well, I succeeded in doing just that and now never think of it unless I wish to. However, it damns me for I have lost the only antidote that carries us over the period after death—the help of religion—and I don't care what religion you may have, but mister, be sure you have one and believe in it thoroughly, for it is the only salvation of mankind.

Now don't get me wrong that it is terrible to die, but there is a so-called Hell and Heaven and unless you have something to tie to in going through Hell you are lost and Heaven is well worth attaining. Pre-knowledge gives you nothing except a mental fight, for you can mentally enter that Hell and unless you are exceptionally strong would become a raving maniac. Some day I imagine everyone will know, but I am sure that at present the human race is not yet far enough advanced to stand the strain. I would not dare tell anyone what I know, and never will, for just think what some people would do to find out such a thing and if I should give it out I would probably be the most hated man in the world. Not only that but do you think the gods would stand for anything like that to happen? In other words I'm just scared to pieces that some time someone might find out that I possess that knowledge, but so long as I keep my mouth shut I will probably be safe.

I am just sending in this letter as evidence that all is not just as shows on the surface, for where did this knowledge come from and how was it given to me and for what reason? You will probably tell me that the deros were practicing their art on me just the same as they did Mr. Shaver, and maybe so, but the matter is not so funny because what I learned is not just fairy magic or something to believe because told by someone in authority, but something that is very simple to understand and provable by the science that we already know which for some reason or other has not been correlated in proper sequence yet unless those who have done so are doing the same as I —just keeping their mouths shut.

After receiving this knowledge I also got out the Bible and read it from cover to cover and discovered many things. Many of the things that were told to me are there only are misinterpreted. I found all kinds of evidence of the Gods. Weapons used in battle much more scientific than we have knowledge of at present; artificial semination, anti-gravity devices, a wonderful art of healing, and above all, a wonderful love of a greater race for a lesser one.—T. O. M.

Your fear of your knowledge is understandable, because so many are afraid—the fear is false, if only you understood that. There is one thing you should be sure of, your Free Will. What fears can a Hell have for one who knows the power of his free will? Don't think that what you know is a secret—we know it too, and much more, and it might be better if you aided us by pooling your knowledge with ours. Think about it, and then write a letter that isn't anonymous!—Ed.

Readers! Write to: Editor, *Amazing Stories*, 185 North Wabash Avenue, Chicago 1, Illinois.

DISCUSSIONS

AMAZING STORIES will publish in each issue a selection of letters from readers. Everybody is welcome to contribute. Bouquets and brickbats will have an equal chance. Inter-reader correspondence and controversy will be encouraged through this department. Get in with the gang and have your say.

IT MEANS SPACE TRAVEL!

Sirs:

Whoopee! At last something really fantastic that has long been predicted by science fiction has come true! I just heard over my radio that an atomic bomb has just been dropped on Japan! It said that it does as much damage as 150 B-29s full of bombs. Think of it, one bomb doing that much damage. Forgive me for the way this letter is written as I was all excited and grabbed the first things I could find to write with.

W. F. Weeks
18 Maxwell Ave.
Parkersburg, W. Va.

Yes, we were excited too—but for more reasons than you. Do you realize that NOTHING has been invented in the past twenty years that science fiction has NOT forecast? So don't say "at last." But what does atomic power REALLY mean? Okay, here we go with more forecasting!

First, realize this—the German V-2, it was said, could have gone into space and escaped this world's gravitation if it had had atomic power! All right, then it is possible NOW to go to other planets! Here is our prediction. Within the next few years, perhaps as little as TWO years, a projectile will be sent to the Moon, to explode there and prove it possible. And, then, immediately, space ships will be built. Now, we want to predict differently than most people have up to now in science fiction—we want to say HOW space ships will be built. The ships pictured in stories are too heavy. They are not practical—nor are they necessary! The ship that travels between planets will be more like a rigid dirigible, lightly constructed, and will be CONSTRUCTED OUT IN SPACE. The V-2 type rocket will take the materials out into space, where the ship itself will be built. But the V-2 will never actually make interplanetary trips.

Science backs up this forecast, as you may remember, in the German plan for a giant mirror in space to focus sun rays on earth as a weapon. This was to be constructed out there!

Space ships will never land on planets, but will be met by V-2 atomic rockets to transfer passengers and freight to the surface of each world.

We point to Mr. Richard S. Shaver's stories in the past year to illustrate this prophecy, which is HIS, and he alone has predicted such a thing to date. However, he has urged us repeatedly to stress this fact—and now that atomic power is here, the ship he has predicted needs only to be built to become a REALITY. We are ignoring the statement by Mr. Shaver in his stories that such ships were used on Earth by the ancient Titans and Atlans, but this, too, is to be thought about, in view of the fact that the Shaver stories have thousands of supporters.—ED.

KEEPER OF THE TRUTH?

Sirs:

I believe that I am qualified, by one standard anyway, to gain a voice in the department of discussion. I am able to prove that I have been a staunch convert to Science Fiction from the long dim nearly historic era of inception. I can recall the first magazine of SF that ever graced the nation's marts—because it symbolized a new era of human consciousness; a visible token of the dreams and aspirations which, heretofore, were held deep in subconcious vaults of our minds—or otherwise proffered nervously to children in innocent guises —lest we offend the GREAT GOD "COMMON SENSE."

But the little ones knew; and I was one of them. I quietly, confidently, laid aside my beloved OZ books and became a wanderer of probable worlds and causal regions of life. That was many years ago. Since then I have wandered in the corridors of metaphysics and occultism, past and future, and have acquired naturalization papers in many dominions of time and dimension.

It is thus with pride and fervor that I write this, my first missive to you and commend you, pay homage to the ideal and thing you represent: A Keeper of the Truth.

I have naturally followed the Richard Shaver saga with great interest and approval. I, too, have known in part whereof he speaks. Yet there must be caution . . . for lo! "the footprints match our own." And in search for defense against the ageless workers in the dark, let us give full measure of power to language and logic; for here lies one of our most vulnerable facets. Should we survey this field of human expression, we would discover

our most insidious foe. Men spoke and their knowledge grew apace; then the dwellers in the dark took their words and wove them into chains; and men became enslaved by their own mind—and their words betrayed them to their foe.

But let this much suffice and help confirm the work now begun. There are many among us who know and have long known of the cult of "derolites"; and long has the war against this destroyer endured. The guardians of our race are ever alert and awake; but they need help. No man or woman can rest or know freedom or escape today, until the work is finished. Once again I thank you for your part, for Richard Shaver's part, in this vital task.

P.L.
1353 Post
San Francisco, Calif.

There is a ringing sincerity in your letter that would baffle us, if we had not received HUNDREDS of letters exactly like yours. Yes, we know now that we are, in a sense, "Keepers of the Truth," and you need not fear, we shall continue to keep the truth that comes to us alive and safe! —Ed.

GOOD, OR BAD?

Sirs:

Now that Amazing Stories has been vindicated beyond all doubt as the "magazine of prophetic fiction," what about the atomic bomb? What will it mean to us? Is it good, or bad?

Arthur Frisch
5326 Harper
Chicago, Illinois

In order to get a true picture of this, you will have to refer to the "stock" phrase being used by radio commentators everywhere in this country: "After all, THEY started it!" What is this, if not an ALIBI? There is one thing only that can be considered in analyzing the "good" or "bad" of the atom bomb—it kills people, a lot of them, and will you say that killing is GOOD?

There is an old saying: "As you sow, so shall you reap!" The Japs sowed bombs at Pearl Harbor, and now they have reaped bombs, a hundred fold. Okay, if the old saying holds for them, picture our own bombs—can we say that we are NOT sowing? We have invented the most terrible weapon in all history. Nowhere in that same history can you find an example of a weapon that was invented that was not developed to still greater perfection and destructive power, and NOT USED! Why, now, should we blindly assume that the MOST DESTRUCTIVE WEAPON OF ALL will not be used in the future? On the basis of the record, the answer is obvious.

Now, what will such usage mean? Again the answer is obvious—the end of civilization as we know it today; H. G. Wells' "solution to the problem" of the probable invention of atomic energy. Fifty years ago he said that the solution would be destruction, back to the point where humanity would be unable to use the power effectively. Back to the point where they'd have to start civilization all over again, PERHAPS sadder and wiser, but not LIKELY.

What we need now is not a peace conference, not a world police force, not an international control body to control atomic power (such a body would mean the enslavement of the whole world of common people!)—but ACTUAL AND REAL rule by the common man, the end of any possible form of dictated government, the establishment of true FRATERNITY, the Brotherhood of Man! REASON, common sense, love, the subjection of SELF. Now it's up to Man himself, to root out hate and selfishness from his nature. It's up to him to EVOLVE mentally and morally to a higher state of human existence. If he depends on FORCE, he will annihilate himself! It cannot be otherwise. Force has but one reaction, force. Force applied to the atoms of Uranium yields force, A HUNDREDFOLD. Think about it, Man; you've GOT TO, now.—Ed.

"REMEMBERS" LEMURIA TOO!

Sirs:

Like Mr. Shaver, I also remember Lemuria. I have not as yet, had any contact with the caves, though I am aware of their existence. My memories date from a later period of history than Mr. Shaver's and take a somewhat different track.

I am the reincarnation of one who lived in Lemuria just before the cataclysm, though I can remember scattered incidents of times previous and many more later incidents. It is my belief that my mind has access to the accumulated memories of my entire ancestry, and that if I but knew the key, I could gain complete entry into that storehouse, instead of brief glances through the chinks in the door.

So long ago that we ourselves are no longer sure of the exact time, my people left their parent world when it became apparent that their dying sun was about to become a nova.

(Their world was located somewhere in the third galaxy. I can't explain further. My knowledge on this point is very incomplete.)

After many, many years, they arrived upon this earth. Here they settled, on the continent of Mu. Only a few remnants of Mr. Shaver's civilization remained. I mean that only a few citadels remained peopled by degenerates.

Under our leadership the empire was revived. We spread our rule over the face of every planet in the solar system. Ours was a mighty empire. We were on our way to becoming as mighty here as we had been in our own galaxy. But the degenerate energy was taking its toll among us, as well as among the remaining Lemurian population. Each day saw the ranks of savages joined by rengades of our own people.

Intermating was raising the savages' level of intelligence. Then we discovered that the cataclysm was coming. Our planned evacuation of the planet would have to take place now. Our engineers were preparing a planet for us in the far side of

the galaxy, but the work was but half complete. However, we could not wait for its completion.

Every interstellar ship available was ordered pressed into service to transport our people away from this doomed world. All trade was suspended as we called back our trade ships for their more vital use. Now we wished that we had not scrapped those giant intergalactic vessels. They would be most useful.

We of the royal family would be the last to leave, though we sent our oldest son to lead the fleet, which was to make the trip as quickly as possible and return for a second load. Then return again for a third and last load. Our youngest and our best were to be the first to leave, and there was celebrating as the fleet blasted off for our new home.

Anxiously, we awaited the word of their arrival on the distant planet. It did not come, nor could we contact them. Our own pleasure ship was converted and sent to ascertain their fate. No word has yet been received from them. Even to this day, their fate is a mystery.

There was no possibility of evacuating the entire population to other continents of this same planet. They were already crowded. Many were evacuated to the other planets of this system, and yet millions were lost when the cataclysm struck sooner than expected.

Overcrowded cities, insufficient food supplies, unemployment, brought their usual disturbances. And the flood of detrimental energy from the sun was ever increasing. Before our eyes we saw our empire collapsing. We tried to hold it back from the brink. We failed. Revolution followed revolution. The empire split into bickering states, and these into militant citadels, and these last into warring savage tribes. The fall of our empire was complete!

Our science had waned with the empire. We had lost contact with our interstellar neighbors, and at last, with our planetary neighbors. Meanwhile the savages waxed powerful, and reached a stage of comparative civilization, and in rising pushed us lower and lower. In the last days of our power certain of my people introduced the practice of slavery, with the savages and some of our degenerates as slaves. With the rise of the savages, the process was reversed and the masters became the slaves. In late times the descendants of the savages have shown a tendency to give up the practice, though it crops up again occasionally.

The descendants of the savages are still rising and seem to be headed for a complete state of civilization, though they are still a long way from it. We in turn have reached the nadir of our descent and have again begun to rise, even as was foretold. We have a long way to go, but we shall again see our former glory. We shall again know that mastery and power which was ours in the past, and the indications of the present are that the descendants of the savages shall help us in our rise. When I am again reincarnated in some future time, it will be interesting to see how far we have progressed.

The history of the savages begins with the end of our greatness, begins with a gap in our history. The last remnant of our power was Egypt, while she was the beginning of yours.

Yes, Mr. Palmer, your race, the so-called, White Race, is of the descendants of the savages, and the present day Dark Race is of the descendants of our onetime subjects. You see, I was once emperor of our empire.

Anthropology backs up my statements. In fact, one of your "Scientific Mysteries" series was based upon the evidences of my proof. All of the long-headed, long-eyesocketed, long-faced people in the present day world are descendants of my onetime subjects. I find it very interesting to pick them out of the crowds on the street, on the "el," and in restaurants. I often wonder if any of them remember the old days, and recognize me as the direct descendant of their onetime emperor. I know that upon occasion I recognize the descendant of some courtier, or some official of my government.

If you should desire a more complete account of my recollections, let me know. I should also be interested in any comments that you may make. And most of all, I should be intensely interested in hearing from anyone with recollections similar to mine.

I have been reading your magazine since 1938, and have found many interesting things about it to hold my interest. I have thought often of writing to you, but have never done so until now. I have never before confessed to anyone my memories, for fear of ridicule, and fear of being branded a nut. I no longer need have such fears. I can now express the things which have been pent up within me for so very long, and I am relieved. I have not given as detailed an account as I might have, but I have been accurate. Also I am not prepared to tell all that I know, for security reasons, but again I say, that should you desire a fuller account, I can supply it, in regard to certain parts of my recollections, since some are more complete than are others.—C. E. B., II.

Because of certain things you have said, which agree with things we have not yet published, from Mr. Shaver and from dozens of letters from others, your letter cannot be dismissed as fiction! We are publishing it now, so that readers, later perusing Mr. Shaver's stories (which have been in our files for months) will see the similarities we have noted, and think along those lines toward what must be the inevitable conclusion. As for yourself, you will have talked with us personally long before this is published.—Ed.

SOME CHECKING PROOFS!

Sirs:

Mr. Shaver's excellent story, "Cave City of Hel," in the September issue of AMAZING STORIES,

strikes me as being one of the most fascinating and surprising pieces of science-fiction you have ever printed. For many years, I have been very much intrigued by some of the identical possibilities suggested in Mr. Shaver's stories.

I have followed this interesting series in your magazine with the greatest of pleasure. Especially amazing was the mention of the Lemurian giants in "Thought Records of Lemuria." This is not only a great tale of fiction, but it definitely has a basis of fact. Prof. Walter E. Kessel, in his book, "The Effects of Gravitation upon the Course of Human Evolution" (1902), now a rare collectors' item, presents the hypothesis that the pushing force of gravity has had a considerable effect upon the stature of the human race. Prof. Kessel is of the belief that the size and weight of previous groups of human beings has been directly influenced by the pushing force of the gravitational field. This would substantiate with almost incredible accuracy Mr. Shaver's statement that gravity acts as a pushing force. According to Kessel, the force of gravity is gradually increasing in potency because it acts in conjunction with the power of the sun. Our sun, in order to provide itself with adequate spacial equilibrium, must discharge at irregular intervals certain amounts of a force (which has yet to be analyzed completely) that controls the downward effect of gravity.

In the days when Mr. Shaver's Titans inhabited the earth, the sun was younger, and was better able to maintain its motions in space without giving out a great amount of the force. Thus, in the times of the Titans, much less force must have been released. The primary beings of that time were able to attain a tremendous size. Of more recent times, however, this force has been stronger due to the increasing age of the sun. The pushing force is more powerful than in the days of Lemuria. The man of today is thusly much smaller in stature than the Lemurian giants.

During the Middle Ages, the sun's spacial cycle was more irregular, too. The people who lived during the Dark Ages were smaller than those of today, as any historian will readily tell you.

Prof. Kessel believes that sunspots are caused by the disturbances of the sun's released force, and may also have some connection with gravity. An interesting side-light is the fact that in 1938, according to Forrey's Almanac, more midgets were born than in any other year of our century. It is an amazing coincidence that in 1938, there was an exceptional amount of sunspot activity!

As for Mr. Shaver's alphabet, there was a very similar theory brought forth by Albert F. Yeager in his article, "The True Basis of Today's Alphabet," which appeared several years ago in *Science World Magazine*. I regret that I cannot recall the exact date of the issue, but believe that it was approximately 1936. Mr. Yeager mentioned in his article some facts that also prove to support Mr. Shaver's conclusions. Yeager stated that the English language contained only six main literal symbols: the letters e, a, o, t, r, and s. These are the most frequently recurring letters in our tongue, and undoubtedly generate the most influence upon our everyday speech and life. Some common words show this influence. According to Yeager, these letters may be used to represent certain meanings:

E—used to represent concepts of life, and of basic life force.

A—representing motion, transportation, or drastic change.

O—symbol for knowledge, or learning.

T—growth.

R—Nourishment, or food.

S—emptyness.

Some of these common words showing this influence are TREE, roughly meaning a growing thing taking nourishment for its life. STAR, or sun, something in an emptyness which has influence on growth, carries on motion, and nourishes (as the planets around it). EAT, something used to generate basic life force, to produce motion, and growth. EARTH, source of life force, motion, nourishment, growth, and humanity. (I have used the meaning of H as given in Mr. Shaver's alphabet to give the concept of the last letter of the word EARTH.)

I am looking forward to future stories of this type. They are certainly the best thing AMAZING STORIES has ever given us! Perhaps other readers who have also studied such data can supplement these findings.

W. Harold Gilpatric
1242 Kings Highway
Brooklyn, New York

ONE OF HUNDREDS!

Sirs:

Your new discovery is really doing himself proud with his Lemurian epics.

You almost had me believing him till you published that letter by John Poldea telling you to read that book by Lovecraft's brainchild, "Necronomicon" and actually implying you believe it.

You seem to either be pulling a lot of ignorant people's legs—or are really serious about the whole thing with just a sly "dig" here and there.

How about explaining your insertion of that letter and acceptance of a book that you and I *know* is merely a figment of the late great HPL's imagination?

Sylvester Brown, Jr.
7 Arlington St.
Cambridge 40, Mass.

Well, Sylvester, you are right about knowing about the Necronomicon, but we learned that a certain group of adolescents were writing us fake letters, and since we DO believe in the Shaver stories to an unstated extent, this was vexing, and the best way to smoke out a prankster is to "fall" for his gag, whereupon he has to get the "publicity" for his stunt to prove how smart he was to put one over. Well, it worked. So there's your reason. Good enough?—Ed.

JET PROPELLED MONO TRAIN

By ALEXANDER BLADE

Now that atomic power is a reality, here is one practical application of it for surface travel

(See Back Cover)

AMERICAN, British and Canadian scientists have cracked the atom—destructively to be sure, but they have cracked it. They have cracked it in another manner, too, although not as yet practical in its application to mechanical science. They have been able to use it to heat water to about 180 degrees Fahrenheit—not enough to cause it to boil, and therefore not enough to utilize it even as a means of producing steam power. Yet, steam power, or a means of breaking down water with tremendous reaction, is the use to which atomic energy may first be put in relation to operating the mechanisms of today. It will mean the revolutionizing of transportation.

In 1944, as can be seen from the signature of artist James B. Settles, this famous science fiction artist created an atom-powered mono-rail train which operates on the jet-propulsion theory, but utilizes steam for its jet rather than exploding gasoline. Once more our artists show their ability at predicting the future.

How does this train of the future work?

First, it can be seen that the train travels on one rail only, located in the center of the roadbed. This implies that the train is balanced in some manner. Balance is achieved by means of a gyroscope, just as the huge ocean liners are kept from rolling in the swell. If you've ever had a small, toy gyroscope, you've discovered how hard it is to turn on its axis, yet it can be moved readily in any other direction. Once placed in an erect position, it tends to remain so, yet such maneuvers as turning horizontally do not affect it. Thus, this train would remain standing erect on its single-track wheels even when standing still, and would be virtually impossible to push over. Yet it could make the sharpest turn with the greatest ease.

It can be seen that the train is really only one car, of huge size, and double-decked. It is built in stream-lined form, much like an elongated teardrop. It is given greater horizontal stability by means of a rudder and by means of small "planes" along each side of the hull.

Ballast is achieved by placing the fuel tanks in the bottom of the "hull," the fuel, in this case, consisting of plain water.

Now let's examine the "motors" of this atom-powered jet train. We find them to be simple mechanisms, containing the radioactive metal which provides the reaction agent for the converting of the water into steam in a violently explosive manner, which is perfectly controlled by means of more than a hundred individual jets beneath the train.

The element used is Uranium, of the kind designated as U-235, or the new element, Plutonium which has an atomic number of 239, exactly the same as one type of Uranium, but in reality, a distinctly new element. The quantity of this element used is extremely small, amounting to only a few micrograms. However, its energy is really transmitted into power by the breaking down, through intense heat, of the water which is directly used as fuel, and very little of the radioactive metal is actually broken down.

The steam thus generated is released through the jets in the base of the car, and propels the train forward by reaction. This steam, super-heated, comes out of the jets almost invisibly, and expands rapidly, but does not burst up from beneath the train in a cloud because of the "condensers" built into the roadbed directly beneath the jets, which condense the steam and allow any moisture thus produced to drain away harmlessly. The amount of moisture shown by the artist is greatly exaggerated, of course, and no such amount would actually be present—however, the condensers would discharge water accumulated by rainfall by necessity, since the condensers would necessarily have to remain clear of such accumulations.

A great deal of force is given to the jet by the intake of air from the two forward-pointing tubes shown mounted in the forepart of the train. The oxygen thus admitted plays a part in enhancing the process of breaking down the water in the intense heat generated by the splitting of the atoms of the Uranium or Plutonium.

Halting this onrushing monster is by means of brakes on the main wheels of the central track. However, in an emergency, a quicker halt may be made by directing the jets forward, only for use in emergency. This train could speed across the continent at speeds of many hundreds of miles per hour, and with a smoothness of operation that would rival the giant air-liners.

PRINTED IN U.S.A.

IMAGINATION? OR INVENTION!

COMPARE THIS AMAZING STORY WITH ITS REALITY

This fictional jet-propelled ship is the invention of James B. Settles (artist) and Henry Gade (author). Note '42 date.

SCIENCE fiction authors have often been criticized for their "extravagant" imaginations, and their fictional "inventions" have been dubbed ridiculous by unthinking persons in spite of the fact that the record shows that literally hundreds of the amazing inventions in use today were imagined in the fiction presented in *Amazing Stories* by these authors long before they became actualities. We present the most recent of those actualities, the jet-propelled plane.

In the cut above is shown the new P-80, the Shooting Star, manufactured by Lockheed. It is propellerless and travels solely on its jets. It reaches a terrific speed, in excess of 550 miles per hour; has a ceiling of well above 45,000 feet.

As proof that our authors' imagination is every bit as logical and practical (and prophetic!) as the best scientific engineers, we are reproducing the back cover of the November 1942 *Amazing Stories*. Compare it with the actual jet plane and note the almost incredible similarity. Truly *Amazing Stories* is the magazine of prophetic fiction!

JET PROPELLED MONO TRAIN

This single-rail train of the future is propelled by steam jets. Special condenser rails prevent steam from shooting out from beneath the train. (See page 178 for complete story)

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